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USES OF PSYCHO-THERAPY IN GENERAL MEDICAL TREATMENT *

By AUSTEN FOX RIGGS, M D,

STOCKBRIDGE MASS

A Definition

1 Psycho-therapy is mental therapy, therapy by mental means, not necessarily therapy directed against mental disorders. In short, it is treatment through the medium of the patient's consciousness.

2 The active principles of psycho-therapy are roughly suggestive and educative, or from another angle, the items of the patient's mind with which and through which it deals are suggestibility and educability. It has, therefore, roughly two avenues of approach, one leading to the emotional, the other to the intellectual side. Both sides are always affected, and the division is merely academic. Inasmuch as every human being possesses an emotional make-up and also an intellect, it would seem that these characteristics might be used to his advantage, no matter what the nature of his illness.

Indeed, the very make-up of "human nature" carries within it the warrant for psycho-therapy as at least an adjuvant item, or better, a guiding principle in all forms of treatment.

B Reputation

In ancient times psycho-therapy was probably the only, certainly the most important form of therapy, and, naturally, bore a high and honorable repute as white magic. But alas, as scientific medicine and surgery developed, mental treatment fell from its high estate, degenerated to a vagabond and consorted finally only with charlatans. It is only in the last two decades that its regeneration to respectability has gone far enough to warrant its readmission into the scientific family circle. That readmission has naturally been somewhat reluctant.

The most satisfactory and undeniable evidence that this readmission has really come about, that the general practitioner realizes the importance of psychiatry and the practicability in his own work

of its therapy is presented by the fact of this symposium on "Mind and Medicine" to which the Medical Society of the State of New York has invited a group of psychiatrists to contribute.

C Applicability to General Treatment

Medicine has, I think, thoroughly accepted the psychiatrist and neurologist as worthy and respectable specialists, but it is time now that the general practitioner should adopt some of their tried and proved wares into his own armamentarium. For if his patients one and all have emotions, and if disease both affects emotion and is affected by it, then he has only to realize that psycho-therapy, both as suggestion and education, will modify both of these reactions, to adopt it as one of his most important weapons.

II

EFFECT OF DISEASE OF EMOTIONS

1 Instinctive Reaction to Illness

I assume that no one will deny the existence of emotion in every human being, whether sick or well, so we may proceed without further delay to the second item of our thesis—the effect of disease on emotions, pausing only long enough to briefly and roughly define what we mean by emotions.

1 As human animals, our first reaction to any perceived change in environment is emotional, that is, it follows a biological and physiological pattern called inherent or instinctive. This process involves a distinct change in the physiological, bio-chemical, and mental status. The latter is that part of the change which is usually labelled "emotion." Or one might say, emotion is what we feel of instinctive reaction. This feeling is always more or less distinctly pleasurable or painful. But the emotion counts more than as pleasurable or painful feeling, for it always carries with it a more or less strong impulse to action, i. e., expression. If this impulse is carried out unmodified, or at least, unconsidered, we speak of the action as impulsive or instinctive.

* Read at the Annual Meeting of the Medical Society of the State of New York at Syracuse May 13 1925

If it is modified, or another action is substituted for it, according to the dictates of intelligence, then the action becomes considered or intelligent to a degree

Human animals, however, vary as to these two items. In the first place, some tend to over-react, some to under-react instinctively. Further, they vary in the relative strength of their specific instinctive tendencies. In other words, some people are more pugnacious, some more timid, some more aggressive, some more retiring than others, in response to any given condition.

In the second place, whatever their instinctive make-up may be and whatever degree of sensitiveness to its activities they may possess, they also vary in terms of their intelligence, thus they vary not only according to their instinctive reactions, but also as to their ability to modify these reactions. This variation may arise from a difference in fundamental ability to understand or from a difference in experience and training, or from a combination of both.

A third variant in personal tendencies is that called suggestibility. This is a tendency, widely varying in different individuals, to the uncritical acceptance of ideas. It is always present to some degree, greater in children and adolescents than in the middle aged, and least in the aged. Roughly speaking, in any one individual and about any one subject its strength bears an inverse ratio to the individual's specific knowledge of that subject. For instance, a layman is apt to be more suggestible than a physician in regard to a medical procedure. (This lay suggestibility always works for or against the physician.)

Thus every human being may confidently be expected to react to illness or any other perceived change in his environment according to

- 1 His instinctive and emotional make-up, including his general sensitiveness to these painful or pleasurable reactions.

- 2 According to the degree of his intelligence or his power, potential or acquired, to modify such reactions through understanding, and,

- 3 According to the degree of suggestibility he possesses, specifically in regard to the given change.

In short, no matter what the disease or disorder may be, every patient is to some degree timid or pugnacious, sensitive or insensitive, intelligent or stupid, and is to some degree ignorant or knowing, and he will react both to his disorder and also to his treatment accordingly.

B Effect of Pain and Discomfort

Irrespective of differences in individual make-up, pain or discomfort will have certain general effects on all.

In the first place, it will definitely increase the general emotional irritability. If the patient is naturally timid it will increase his timidity; if he is pugnacious it will increase that pugnacity.

In short, sensitiveness, whatever the specific or habitual experience may have been, will regularly be increased by pain.

Its effect on mood is of course well known. It diminishes elation or turns it into the channel of irritability. It definitely and directly causes depression. The classical physiological responses to pain are

- 1 Increased muscular tonus,
- 2 general increased psycho-motor activity,
- 3 marked vasomotor changes, and,
- 4 not infrequently sweating.

Among other items are the still little understood changes in blood chemistry, endocrine activities and metabolism. This, of course, is only the physiological side of the emotional picture. Perhaps these physiological changes constitute the actual specific basis of the emotion we feel in the presence of pain, complicated or not as the case may be, by the addition of specific fear or anger according to whatever may be one's particular make-up.

However this may be, the fact seems plain that pain has a specific effect upon the emotional status of one who suffers it, and that his response is likewise more or less specific according to his emotional nature, his suggestibility and his intelligence.

C Effect of Confinement

Inactivity, or better, *confinement*, is another aspect of illness or disability which calls for specific responses from the sufferer. By restricting the mental horizon, by forcing the attention to focus on pain, discomfort, or the abnormal function, it produces at least a strong tendency to introspection. Of course, merely mechanical confinement of a previously active person is productive of discomfort both of mind and body, not to speak of the boredom of an active mind thrown out of its occupation. Inactivity also necessitates physiological readjustments which add their quota of disagreeable sensations to those of the illness itself.

D Effect of Disability—Significance of Disease

Far more important than any of the foregoing items inherent in disease or disorder causing definite and unfavorable changes in a patient's emotional status, is what we may well call the *significance* of the episode to the patient. Indeed, if one includes a definite diagnosis of the individual make-up of the patient in the meaning of the term "significance" this one item may be said to contain the sum total of the psychotherapeutic, if not of the whole therapeutic indication.

The emotional effect of illness will depend largely on this item, for though the actual condition, be it a fracture of an arm, or pneumonia, is of obviously transcendent importance — its significance to the patient is far from being judged by the pain and discomfort which it may cause him.

That alone will produce some emotional reaction, but that reaction is a mere spark compared to the emotional blaze of his reaction to the significance which his illness has for him. A mere whisper produces a very small physiological reaction through the eighth cranial nerve, much maller than the loud, more painful sound of an explosion. Yet, if that whisper signifies that you are about to be shot through the head, the emotional reaction will be overwhelmingly great and extremely painful, whereas the loudest explosive sound, if you are sure that it only signifies a blast in a nearby stone quarry, can cause hardly more than annoyance. So it is with the pain or discomfort of illness, the absorbingly interesting question to the patient is, what is its significance? His emotional reaction is in response to some such category as this

What is the significance of these disagreeable symptoms?

Am I going to die or get well?

Does this mean a short or long invalidism?

How long and how much pain am I to suffer?

Am I to be disfigured, deformed, permanently crippled?

Will this effect my earning capacity?

Does this mean that I must assume a burden of debt?

Must I change or lose my job?

In other words, it is not the facts alone, but what the patient believes they are and what he believes they mean, which constitute their significance to him. Prognosis in the broadest sense of the word is, what interests him, and whatever he thinks it and feels it to be, is what he reacts to emotionally. To judge this significance, let alone to modify it favorably, one must know his patient, not just physically, but individually, that is, one must know his temperamental and instinctive make-up, the degree of his suggestibility, roughly, at least, his intelligence quotient, and his educational status, and last, but not least, his financial and economic condition. In short, to judge the extent and nature of any individual's emotional reaction to disease and disorder, it is of the utmost importance to know his individuality on the one hand, and keeping that in mind, to estimate the degree to which the condition seems to him to threaten his physical, his social and his economic integrity. Only by some such approach to his personal problem can one apply the often sorely needed psychotherapy. Aside from whatever individualistic differences they may exhibit, a banker with a large assured income who has suffered a simple fracture of the lower leg, obviously has a very different problem on his hands than a self-supporting woman suffering from the same or a very much lesser accident.

E Individualistic Variations of Reaction

However, given the same social and economic status and also the same illness or accident, very wide differences in reaction occur in different individuals. This is due as has already been suggested to fundamental differences in individuality. Obviously a highly suggestible, intelligent, though ignorant and perhaps superstitious and timid person will not only react quite differently to the actual disorder, but also will find a different significance in it, than, let us say, a non-suggestible, equally intelligent, better educated and somewhat pugnacious individual. It is quite obvious that each of these two hypothetical cases will have a different instinctive reaction to illness, this reaction will again be modified differently in each case, according to the available intelligence, each will react differently to the pain and discomfort, differently to the confinement, and lastly, and *most* differently, to whatever in each case is to him the significance threatening or otherwise of the illness.

III

EFFECT OF EMOTION ON DISEASE

A Functional Change is Basis of Emotion

As disease affects emotion, so conversely emotions must affect disease. After all, change in organic function is the very basis of emotion, and consequently there can be no change of emotional status without a concomitant change in organic function. Ergo, emotional change must affect disturbed as well as normal organic function, either beneficially or harmfully to some degree or another.

Anger, fear or pain as is well known, cause changes in the rate and character of the heart's action, in vaso-motor activity, in blood chemistry, endocrine activity, in gastro-intestinal action, and in muscle tone.

It is clear that these changes when they occur in the presence of diseases or disorders affecting any of the organs or so-called systems, must be either advantageous or disadvantageous.

B Diseases Affecting These Functions Must Then Be Affected By Emotion

No man of experience would care to have a patient suffering from high blood pressure undergo a violent and prolonged rage. Nor would he care to have a case of severe cardiac disease subjected to paralyzing fear, nor in fact, to any other violent emotion. What anxiety on the part of the nursing mother does to the baby is another obvious instance among many others which could be adduced to point the moral that emotions are by far too important factors to be neglected by a physician no matter what his specialty.

IV

EFFECT OF TREATMENT ON EMOTIONS

A Treatment Part of Situation of Illness

Entirely aside from any abnormal mental condition it is a fact that physical treatment itself is part of the situation to which a patient is adjusting himself. He reacts not only to the disease but to the treatment as well, not only to the significance of his disease, but, mark well, to the *significance of his treatment*, for no matter what is physically wrong he is always the sensitive emotional man, the more or less suggestible "child of nature," and his treatment, whatever its physical effect, has to him outstanding emotional and intellectual values.

B Environmental Effects

His surroundings are to him physically agreeable in terms of sight, sound and odor, or disagreeable. They are emotionally acceptable or repellant to some degree according to their significance to him. They may be gruesome, they may be threatening, or they may be hopeful and encouraging. These elements are always for or against his welfare, and should not be neglected.

This applies as well to the personnel by whom he is cared for. A good-looking attractive, friendly, interested nurse is as great an advantage as a homely, impersonal, uninterested nurse is a disadvantage.

C Significance of Procedures

So it is with all procedures, diagnostic or therapeutic, which the patient undergoes. Every item has its personal significance to him. We must not forget that in taking a history we are subjecting him not only to a memory test, not only to a disturbingly introspective process, but we are causing to pass in review before him many possibilities of familial and hereditary disease and weakness. A physical examination, likewise, may only too easily cause him to suspect as we do, each one of his organs as it is examined. He may well wonder, has he this disease or that? Perhaps he is fifty, and as often is the case, has long dreaded the possibility of cancer, or apoplexy, or heart failure, or arterial sclerosis. We may, furthermore, even introduce new suspicions.

Our therapeutic procedures also have special significance to him. How will this operation affect his life? Does it carry an immediate threat to life itself? Is he to suffer more pain and then be free from it? You may know the facts, but the chances are that without your help the patient does not know them, and they are the most important facts to him. If he is not informed, he will guess at them and react emotionally according to his guess. To give such information in practical and helpful form is a part, and a big part, of common-sense psycho-therapy.

V

PSYCHOTHERAPY

A Objects of Application

From what has gone before, the objects of applying psycho-therapy in general practice would then seem to be:

First, to avoid unfavorable emotional reactions,

Second, conversely, to foster favorable emotions,

Third, to build up favorable sentiments, such as courage and hope,

Fourth, to use favorable suggestion,

Fifth, to avoid adverse suggestion, and

Sixth, to gain intelligent cooperation, both in diagnosis and treatment, through the patient's understanding and his confidence.

B Understanding of Patient Essential Basis

In order to attain all or any one of these objects the first essential is to understand the individual one is dealing with, and that means understanding his instinctive personality, knowing roughly at least what his experience, educational and other has been, estimating with fair accuracy his intelligence, especially in terms of his educability and last, but not least, knowing his economic status.

C True Estimate of Significance (Disease and Treatment)

Only on some such basis can one reach an really practical estimate of the significance to the patient of his disease, or of the probable significance to him of the proposed therapeutic procedures. This estimate, at least a helpful guide to any treatment, is absolutely essential to any and all psychotherapy.

VI

APPLICATION OF PSYCHO-THERAPY

A Personal Attitude

When we consider the actual application of psycho-therapy, the personal attitude of the physician to his patient is of first and outstanding importance. It is in misfortune that "a feller needs a friend" and illness is a misfortune. This fact is an invitation to make the relationship of physician and patient one of friendship, and it is an invitation which must be accepted if psycho-therapy is to be successfully used. The wish to understand must precede understanding in order to lead to *sympathetic* understanding, and *sympathetic* understanding is as necessary to success as *unsympathetic* misunderstanding and contempt are destructive of it. Hence the importance of approaching the patient and his problem in the spirit of friendship. This spirit will show through the physician's manner more than in his words—so will the opposite. That highly personalized attitude of a scientist interested

only in the intellectual problem presented by a nameless "case" does not appeal to a patient. This, too, shows through both words and manner. Even if this does no other harm, it at least robs the patient of his sense of identity, which, by the way, if he happens to be a ward patient in a big hospital, is already pretty well shattered but it actually *does* do other harm, for this impersonal attitude repels confidence, and this puts an emotional dam where a bridge should be and thus excludes mutual and sympathetic understanding. Honesty of purpose and determination to succeed stand out in a physician's attitude and create confidence and hope, whereas vacillation, and that miserable self-protective covering of oneself from perhaps later having to acknowledge a mistake, by making all the other possible guesses and sharing one's doubts with the patient, is as contagious as any other form of cowardice.

3. *Useful Sentiments to be Aroused*

If we are to produce the useful sentiment of hope in our patients, we ourselves must be both hopeful and honest. If we wish to inspire faith we must not only be determined, one hundred per cent determined, to do our best, but we must have faith and show that faith in the integrity and ability of our patient.

If we are to inspire courage we must have it ourselves. These invaluable emotional aides or their harmful opposites, are absorbed by our patients more through intimation and unconscious imitation, more by indirect suggestion, than through didactic teaching and learning, and hereby hangs the great and constant importance in all forms of treatment or suggestion.

4. *Suggestion to be Used*

Suggestion plays a part all the time from the very first contact to the last. It acts rather through *how* a thing is done than what is done, through *how* a thing is said than what is said. A solemn and anxious manner will obviously completely neutralize an otherwise cheering phrase such as "First rate. You are doing well." Whereas the suggestive effect of a satisfied, confident and cheerful manner will easily carry off a literally cheerless remark such as, "Not so bad."

5. *Adverse Suggestions—Avoid*

To use suggestion and avoid adverse suggestion is largely a matter of that rare sense, common-sense and honest tact. Guided by sympathetic understanding, reinforced by the technique of honest tact, adverse suggestion can be avoided throughout all diagnostic and therapeutic procedures. The full advantage of favorable suggestion can likewise be secured through these same qualities by the simple method of emphasizing such diagnostic results as are distinctly

favorable—strong normal heart, a large lung expansion, for instance, and doing this same thing in therapeutic procedure by pointing out the results already attained or surely to be expected.

VII

APPLICATION OF PSYCHO-THERAPY TO SPECIFIC MENTAL STATES

A. *Many Diseases and Intoxications Accompanied by Marked Mental States*

There are emotional and intellectual disturbances caused specifically by infections and toxemias which in themselves constitute obviously important targets for our therapeutics. I refer to the hallucinations, the deliria, the elations and depressions so often occurring in the course of severe toxemias and infections, especially, if there is hyperpyrexia. These occur frequently and are at times quite threatening in themselves. It is so obviously important to be able to treat these mental conditions by mental therapy that stating the facts would seem sufficient argument for adding psycho-therapy to the general practitioner's equipment.

Typhoid, pneumonia and other infections and intoxications, if severe or if the patient is particularly sensitive, are not infrequently marked by specific mental states, which in themselves call for wise treatment. These states present definite opportunities for the general practitioner to apply common-sense psycho-therapy. Delusions, hallucinations, temporary or permanent changes in personality are seen in encephalitis, arterial disease and in cardiac-renal syndromes, these and exaggerations of mood as in the depression so often seen during and after an attack of influenza, are examples of such abnormal mental states and they occur with no little frequency in the course of general practice.

B. *Treatment (aside from physical) of These States*

The mental treatment of these states varies of course with the exact nature of the abnormality and its severity and, on the other hand, with the specific mental make-up of the patient. In general, however, it consists of the same elements (in varying proportion) which constitute all psycho-therapy, namely, suggestion and education.

Of course it is futile—not only futile, but harmful to force argument against a delusion. To fight it or to seem to fight it, merely antagonizes and distresses its victim. Realization of its reality to the patient is a *firm basis* for reassurance, and reassurance is sometimes more effective if made in the very terms of the delusion or hallucination. For example, if a patient sees spiders on the wall it is better to explain that they are harmless spiders or even go through the

form of wiping them off the wall, even if it has to be done over and over again, than to "pooh pooh" contemptuously the idea, which will only increase his distress and perturbation. Likewise, it is both futile and harmful to make a moral issue of a personality change and attempt to apply discipline thereto. The most careful, tactful, sympathetic, and skillful re-education and training, usually over a prolonged period, is necessary to produce a readjustment, whereas the mistaken "moral" method can result only in antagonism and hardening rebellion.

Mood swings must be intelligently, not forcefully, dealt with. To scold a patient for depression is to waste effort in proving to him what he already knows, that the depression is unreasonable, and simply increases the depression and further undermines his already shattered self-esteem. On the other hand, to teach him to accept it and its psychic pain as necessary though temporary evils which are characteristic of and due to his disease and not even distantly related to his moral integrity, helps him in the way he most needs and deserves help.

VIII

CONCLUSION

A Summary

To summarize

1 If any disease or disorder affects favorably or unfavorably to some degree the patient's emotional life, and, conversely

2 If the emotional state of any patient affects in some degree, favorably or unfavorably, whatever disease or disorder he may be suffering from, and furthermore,

3 If any form of treatment affects the patient, whatever his disease or his disorder,

somewhat through the medium of his mind,

4 Then, there can be no question that psychotherapy—treatment of and through the patient's mind—is indicated to some degree for all patients, whatever they are suffering from, and in all forms of treatment, whatever their nature.

5 Then there remains only the question as to how important in any specific case and in any particular procedure psychotherapy is.

I believe that it is measurably important in all cases and in all forms of procedure, both diagnostic and therapeutic, but that its relative importance is in direct ratio to the degree and specificity of the sensitiveness of each patient, and on the other hand, to the degree of significance which the procedure has for him.

6 The specific methods of psychotherapy are education and suggestion. The diagnostic guide to their application is the physician's understanding of his patient's individuality.

B Conclusion

Therefore, in conclusion, I wish to point out that though psychotherapy is, to be sure, often only "common-sense," it requires just as specific knowledge and just as specific training as any other therapeutic technique. This specific knowledge is psychiatry and it should, therefore, be given an important place in undergraduate medical teaching. Finally, I dare suggest psychiatry also as a post-graduate study, most valuable and profitable to the general practitioner. After all, psychotherapy applied to general practice is but the specific modification of all procedures to suit each patient's emotional and intellectual need. Its mastery will measure the physician's own educability, its application will spell the quality of his success in contributing to his patient's welfare and happiness.

MENTAL HYGIENE AND ITS RELATION TO GENERAL MEDICINE*

By C MACFIE CAMPBELL, M.D.,

CAMBRIDGE, MASS

The startling advances recently made in the knowledge and treatment of the infectious and the metabolic disorders have given special prestige to biochemical and immunological studies, the reaction of the individual to the demands of the environment has made less appeal to those of an exact turn of mind and insistent on laboratory methods of precision. The biological study of man, however, requires not only the detailed analysis of the component mechanisms but also of the reaction of the individual as a whole to the complex demands of the social environment. Physicians see many patients whose crippled condition is due to some hitch in their adaptation to the social environ-

ment, the physician who neglects altogether the situation in face of which the patient finds himself, or the personality which has to deal with the situation, may miss the key to the symptoms of his patient.

In regard to the great number of people who break down owing to some difficulty of adaptation to the environment, most definite recognition has been given to those with overt mental symptoms, the so-called "insane." These patients, however, represent only one group of mental disorders and not that group which the general practitioner has most contact with and most opportunity of serving. The fact that the State has to a large extent taken over the responsibility for the care of such patients, and that the patients are looked after in

*Read at the Annual Meeting of the Medical Society of the State of New York at Syracuse May 13 1925

hospitals not much visited by the general practitioner tends to eliminate the care of these patients from the immediate field of interest of the practising physician. The general practitioner is more familiar with another group of mental disorders, composed of those which masquerade as physical disorders, while the roots of the trouble lie in the emotional and instinctive life of the patient. These patients may be seen by the psychiatrist, but usually only after a pilgrimage to many other physicians. Their experiences during this pilgrimage may do much to determine the persistence and the variety of the symptoms which they present.

It is well to include among mental disorders many cases of distorted or hampered personality. The physician, perhaps called in for some incidental sickness, if a student of human nature and mental hygiene, may find as much of interest in the patient himself as in his bronchitis or his gout. His attention is arrested by the special inefficiency of one patient, the ill-balanced enthusiasms of another, the rigid and reticent personality of a third, the individual likes and hates and mental attitudes of others. Marital incompatibility, strained relations between children and parents, various indications of an unhealthy atmosphere may be noted. It may be as reasonable for him to try to improve this atmosphere as it is to give directions with regard to the physical ventilation of a sick room.

There is no more important field in preventive medicine than that offered by the minor indications of personal difficulties in childhood.

In regard to the various groups of mental disorder referred to, the general practitioner has an opportunity of being of the greatest service.

Quite apart from his help to the individual patient, the general practitioner is able to do much to raise the level of thought of the community in regard to problems of mental health, he can encourage people to face squarely mental illness, to deal with it promptly and appropriately, and to look upon it in the same matter-of-fact way as upon other forms of sickness. When this is the general attitude of the community, patients with mental disorders will have a better chance of their troubles being thoroughly studied and adequately treated at an early period when most can be done for them. At the same time the dissemination of this point of view will remove the heavy burden of those who feel that they dare not even speak about their relatives who happen to have some mental disorder, and who shudder as they think of the bogey of heredity.

Similarly in regard to mental defect it will be an advantage when all false values are re-

moved from the topic and when physicians encourage the parents of backward children to recognize frankly their limitations and to arrange for the best development of the capacities of the individual child. How often do parents come in despair with adolescent defective children whose training has been unfortunately neglected owing to the sensitiveness and old-fashioned views of the parent!

To take up in some more detail the problems of the above groups from the point of view of the general practitioner

(1) Severe and protracted cases of mental disorder are, as a rule, treated in hospitals under the care of psychiatrists. In the incipient stages and with mild symptoms the patient may, for a long time, be under the care of the general practitioner. The latter feels at home in studying the physical symptoms of the patient and in instituting the necessary measures of treatment for any obvious somatic symptoms. He has more diffidence about trying to make a specific analysis of vague changes in mood, of slight peculiarities of social behavior, of special subjective complaints of the patient. He may not know how to examine in a systematic way and with precision the functions through which the individual adapts himself to the environment. He may not know how to review the personality of the patient, nor how to analyze the rôle played by the instincts, the special attitudes, the phantasies and memories of the patient, nor what weight to lay on the stresses and strains of the life situation. The physician has been trained to study the behavior of the heart under various circumstances, he has seldom been trained to study the behavior of the individual. The medical examination of a patient is incomplete unless the physician has paid some attention to the emotional life of the patient, and to his main attitudes and beliefs. Mental disorders are not always symptomatic of infections or disturbed metabolism. They are frequently symptomatic of the difficulty which the individual has in digesting painful experiences, in assimilating disturbing instincts, in facing the objective world without any pleasure-giving distortion. Psychiatry has only begun to free itself from the shackles of a complicated jargon which has done much to intimidate the general practitioner, what with schizophrenia and paraphrenia, schizoid and cycloid, extravert and introvert, he feels that a psychiatric diagnosis is either a most alarming intellectual effort or largely bluff. The physician who realizes that the technical verbal diagnosis of the condition is of secondary importance and who passes beyond the verbal diagnosis to the real difficulties in the life of his patient, who studies earnestly the latter's life problems

and equipment for dealing with these problems, can be of great practical service to the patient. It is difficult to over-estimate the relief which is given to a patient who finds a physician willing to give time for the consideration of his personal difficulties and to whom he can unburden himself. Such an opportunity for a serious discussion is half of the treatment and can be utilized without the aid of technical jargon.

(2) The general practitioner, while feeling at a loss in face of an overt mental disorder, is less puzzled when confronted with patients who do not have any distorted ideas of the outside world, who have no feeling of being under a mysterious influence, who have no hallucinations and who do not want to commit suicide, but who complain of a great variety of attacks or symptoms, for which no adequate organic basis is found. He groups them together as "nervousness" or uses in a rather rough and ready way such terms as "hysteria" or "psychoneurosis." Physicians of one temperament consider such patients from the ethical standpoint, apply the term "neuropathic" in a derogatory sense, have little interest in the actual mechanism of the symptoms of the patient, their interest in the case ceases when they have made the diagnosis "hysterical" or "functional." In others therapeutic enthusiasm leads to a definite line of treatment, either original or borrowed from one of the schools, and the physician realizes that his personal interest and sympathy have much to do with the attainment of good results. There is no reason, however, why the general practitioner should not attempt to make as accurate a diagnosis of these patients as of his cases of heart disease or kidney trouble, he is not content to diagnose one of the latter group as having some vague "cardiopathy" or "nephropathy," he must be equally unwilling to think of one of the former group as having some vague "neuropathy" or "psychoneurosis." When he uses the term "hysteria" in a strict sense he must realize that it is not only a negative diagnosis eliminating an impersonal organic basis for the symptoms, it is a positive diagnosis involving a specific mechanism which explains the development of the individual symptoms under the influence of the definite situation. It is only when this mechanism is clearly grasped that treatment will be adequate. Here again the general physician may feel rather intimidated by the extraordinary complexity of psychological mechanisms, made still more alarming by names borrowed from Greek mythology, but as he diagnoses and treats his heart cases efficiently without having exhausted the details of the electrocardiogram, so he may treat many cases of hysteria, of phobias, of obsessive thinking without a highly

specialized knowledge of the psychological underworld.

(3) It is well to restrict such terms as "hysteria" and "obsessions" to cases presenting certain special mechanisms. There is in addition a large army of patients with physical symptoms, in whom personal factors play an important rôle, while the physical systems also are partly at fault and supply some ammunition for the personality. In these cases the question is not whether the handicap of the patient is due to mental or to physical causes (or preferably to simple impersonal or complex personal causes), but *how much* is due to the former and how much to the latter. In a great number of so-called "nervous" cases or cases of "nervousness" some physical anomalies are found and require attention. There is a tendency on the part of those engrossed in the study of the more complex functions to neglect the simpler functions, to give inadequate attention to nutrition, to the oral hygiene, to gastro-intestinal conditions, to the necessity of fresh air and sunshine and a well-balanced daily program. There is on the part of others the tendency to lay all the stress upon the physical disorders present and to pay little attention to the more complex factors, or to look upon them as merely symptomatic of the physical condition and not deserving of independent study. With slight hyperacidity the patient may be encouraged to devote a good deal of time and attention to it, while the complete neglect of the gastric symptoms with attention to certain domestic or social problems or a review of past experiences might lead to a better result. So the patient may be encouraged to lay too much emphasis on the blood-pressure, weight, posture, minor aches and other subjective feelings.

(4) When general medicine takes the patient himself as an object of study and looks upon his happiness and efficiency as of some importance, various personal conditions will become objects of medical scrutiny which tend, at present, to be considered as outside of the problems of the physician. The physician is entitled to correct bad physical posture, it is not looked upon as equally obvious that he should do what he can for a bad mental attitude. A person with a faulty posture may have no pronounced symptoms but the orthopedist may see how a little advice may enable the patient to use his energy more economically and with less fatigue. The patient, after utilizing such advice, may realize for the first time what it is to be in good health and may look back upon his previous condition as one of ill-health, not recognized at the time as such. So there are plenty of people rubbing along in life with no outstanding symptoms of the type which we ordinarily associate with mental

illness, but who are essentially in a condition of ill-health or reduced health, and who might utilize their equipment much more efficiently and get a great deal more happiness out of life. It is hardly possible to enumerate the different personal complications, the special prejudices, the special topics of sensitiveness, the unsatisfactory compromises and defense reactions which may interfere with full efficiency and happiness. Many people are living in one situation, *as if* they were in another, they are living in their adult life, *as if* they were still facing a situation of childhood, they are living in relation to one person, *as if* he were another, the emotional values they give to situations may have little relation to the actual situation, but are derived from that other imaginary or past situation in which their attitude finds its explanation. The married man finds things unsatisfactory because unwittingly he is looking for a mother when he has in fact taken a wife, and so the wife may feel a strange discontent because she does not find in her married life the comfort of a daughter-father relationship. The radical behaves to the state authorities *as if* they were his own tyrannical father. The parent treats the child *as if* the child were he himself having a second chance at life. The prudish young woman feels that others are very unsympathetic and critical, because she sees others *as if* they were inspired by her own self-criticism and discontent. The adult is still weighed down by a feeling of inferiority or may compensate for it in a disagreeable way, *as if* the early criticism of childhood misdemeanors were absolutely valid and final and *as if* he were inferior to others. The situation which brings the physician into the home is infinitely varied. It may be a mental disorder, it may be a so-called nervous condition, it may be some organic condition of heart or gastro-intestinal tract, or it may be because the individual in despair at working out his own salvation turns to the physician to see whether he has anything to offer. No matter what the initial reason for the contact may have been, the physician, if sensitive to the main issues of life, may give advice in regard to problems which are of far greater importance than those which first brought the patient to the physician. A mother may bring a child because of some trifling symptoms of the child which puzzle her. She may stay to get a better philosophy of life and to realize that her solicitude for the child was merely one indication of her own difficulty in meeting her own problems. A teacher may come because of some apparently minor variation in teaching efficiency, and may find that it indicates a variety of unsolved problems which it is worth while trying to solve. A man may come in a very critical attitude to discuss his wife's be-

havior and have his eyes opened to the real problems of his own life. The individual may come for some minor symptoms, some trifling eruption or subjective feeling or minor speech defect, and may find that the symptom is of little importance while the personal problems behind the solicitude over the symptom are worth attending to.

(5) The increasing attention to the needs of the child has brought many children to the physician in a way previously unknown. Mothers wish advice, not only about the diet of their children and hours of sleep, but about their training about how to develop kindness and unselfishness, concentration and efficiency of all kinds. The systematic survey of school children has given the physician the opportunity of reviewing large groups systematically and of coming across problems which would otherwise have escaped attention. It is possible to estimate the mental hygiene of many homes as we have previously studied their physical hygiene. Some knowledge of the simple principles of the training of children is badly needed in many homes of rich and poor. It is not a question of social or economic or educational level, academic culture and great solicitude of parents are sometimes found along with absurd training of the children. The values given to topics in childhood are liable to persist into adult life, and seriously faulty adult attitudes may have their first beginning in early childhood. Insurmountable difficulties in adult life might have proved very ordinary tests had the early training been different.

The general medical profession can make a valuable contribution to the mental health of the community by taking the personality of the child and its disorders of conduct as seriously as it takes its difficulties of nutrition and infectious disorders.

Every physician is an unofficial guardian of the public health and in his own practice can be an important force for good in the enlightenment of the community. Many are chosen to play a special rôle in relation to certain large organizations. The physician is called in to advise the school system with regard to the health of school children, in industry he is in touch with large groups whose health he is responsible for safeguarding. As a municipal and state officer he can do much to guide the thought of the community in regard to health problems. In all this work it is very important that the physician should never forget that the highest aim of medicine is the efficiency and happiness of the individual and that this aim can only be accomplished when attention is paid to the complex factors involved in human nature and to environmental opportunities out of which human nature must wrest its satisfaction.

THE VALUE OF BLOOD TRANSFUSIONS IN POST-OPERATIVE MASTOID CONDITIONS WITH SPECIAL REFERENCE TO SUSPECTED SINUS THROMBOSIS *

By HAROLD HAYS, M.D., F.A.C.S.,

NEW YORK CITY

WITHIN recent years the methods for transfusing blood have become so simplified and standardized that blood transfusion has become a therapeutic procedure, which is second to none in the treatment of certain conditions. The indications for transfusion are in hemorrhage, diseases of the blood, toxemias, infections, shock and general debility. There are no contra-indications.

An historical survey of the methods for transfusion is not without interest. As short a time as fifteen years ago, direct vein to vein or vein to artery anastomosis was the only method known. The operation was tedious, technical and took hours to perform and, often it was attended with certain dangers because methods of typing the blood were unknown. Moreover, it was impossible to estimate the amount of blood which the patient was receiving. From then on a gradual evolution in methods took place. The greatest advance was made by Lindeman, of New York City, who demonstrated that blood could be transferred from recipient to donor by the use of multiple syringes. In this way the patient could be conveniently placed away from the donor, and the amount of blood which was transfused could be determined. In the meantime, better methods of typing the blood were discovered, until today we can accurately match donor and recipient. It was but natural that a class of professional donors should come into existence, healthy individuals with no evidence of syphilis or any other blood disease, who had been previously classified, and who could be called to service at a moment's notice.

Various modifications of Lindeman's method have been described from time to time. Each one has its value. But the simplest of all the methods, and the one which is bound to meet with universal approval because of its simplicity is the one devised by Dr. Lester J. Unger of New York City, in 1915. A description of the instrument and technic follows.

Fundamentally the instrument is a stop-cock, which alternately connects a syringe for blood to the donor, and at the same time a syringe with saline to the recipient, by turning the cock, the syringe with blood is immediately connected to the recipient and the syringe with saline to the donor.

Alongside of the instrument, which has been fixed to a table, the arms of the patient and donor are placed. The tubes leading from the

instrument are connected to the cannulas after the latter have been inserted into the recipient's and donor's veins. The operator then inserts a record syringe into the instrument and aspirates blood. When the syringe is filled, the assistant turns the stop-cock and the operator injects the blood. This is continued until the desired amount has been transfused. By means of an ether spray, a stream of ether is played on the barrel of the record syringe while it is being filled with and emptied of blood. This prevents coagulation.

The syringe method of transfusion has definite advantages which make it a method of choice when a transfusion of whole unmodified blood is desired. The method is extremely simple. Any amount of blood may be transfused with but one syringe and unusual dexterity of the operator is unnecessary.

I do not wish to enter into a controversy as to the relative merits of whole blood and citrated blood (blood treated with a 2% sodium citrate solution, so that it may be kept outside the body for an indefinite length of time). Much as citrated blood is of value for replacing blood lost from hemorrhage, for example, there is no question that unmodified blood is far more valuable in the cases which will be considered in this paper.

Only within the past few years have we been in a position to realize the great value of blood transfusions in complicated post-operative mastoid cases. In 1920 there was actually an epidemic of mastoiditis in New York City. Ninety per cent of children who developed an acute infection of the middle ear eventually developed symptoms of mastoiditis, and many of these had to be operated upon. To add to the distress, the majority of these children developed some sort of complicating condition which ranged from a prolonged convalescence caused by the severity of the original infection to sequelæ such as sinus thrombosis, brain abscess and meningitis. The cases which baffled us the most were those in which there were intermittent temperatures, often rising to 106 degrees F suggestive of a sinus infection, but in which the blood cultures were negative, and there were no other signs of vein infection. The problem was not so difficult of solution where there had been an operation on one side only, for one could, with justice, reopen the mastoid wound, uncap the vein and investigate it. But where there had been a bilateral disease and operation, it was often impossible to determine which side might

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possibly be causing the trouble and one had to wait for the presentation of definite symptoms. Having two baffling cases at that time, it was suggested to me that both these children be transfused. A citation of these two cases will prove of interest. **CASE 1** A child of three years had a bilateral otitis media. The discharge had continued for three weeks with irregularly high temperatures, until definite signs of mastoiditis developed. The infection was due to the streptococcus hemolyticus. Both mastoid processes were thoroughly cleaned out. Neither sinus or dura was exposed on either side. After the operation, the child developed intermittent temperatures as high as 106 degrees F with chills. Numerous blood cultures were negative. The blood count at one time was 50,000 leucocytes with 86% of polymorphonuclear cells. There was a suspicion of broncho-pneumonia. The child's condition was so bad that a transfusion of 400 c.c. of blood was given her. Immediately, there was an improvement and, although pneumonia eventually developed, she was able to ward it off without any trouble.

CASE 2 A boy, four years of age, developed a bilateral mastoiditis, the infection caused by the streptococcus hemolyticus. At the time of operation great difficulty was encountered because the sinus plates were directly underneath the cortex and both sinuses were exposed. A few days after operation the child began to run intermittent high temperatures. On the fifth blood culture organisms appeared on the culture media, and a doubt as to a sinus thrombosis was cleared up. The question then arose as to which sinus was involved and, after numerous consultations, it was decided to investigate the right sinus and, if infection was found, the jugular vein was to be ligated. This sinus proved to be affected, and so the ligation was done. In spite of this, the temperature continued and an infection of the right ankle occurred. This was opened up, but the temperature still continued and there seemed to be a great possibility that the other sinus was involved. At the end of the third week, the child was given a blood transfusion of 400 c.c. Within twenty-four hours, the temperature dropped to normal and remained there, and within a short time he was able to leave the hospital perfectly well.

These two cases were very instructive and proved the value of blood transfusions. In the first case, I have no doubt many surgeons would have uncapped the sinuses much to the detriment of the child. If the transfusion had not been performed, I feel sure that she would have succumbed to the pneumonia which remained hidden for such a long time. In the second case we were dealing with a septic temperature after the ligation of one jugular vein. There was a great possibility that the other vein was infected. The positive blood cultures after the first operation

may have been accounted for by the infection of the ankle, but they may also have been due to a diseased vein. The investigation of this second vein no doubt would have resulted in death. The blood transfusion allowed the child to withstand the infection and eventually ward it off.

But, to my mind, far more interesting than these cases are the ones where patients run a septic temperature after a mastoid operation where sinus thrombosis is suspected, but cannot be proved, and where an investigation of the sinuses would be a serious menace to the patient, particularly if both mastoid processes had been operated upon and no determination could be made as to which sinus might be causing the trouble. With all the evidences of a septic condition, most of these cases have repeated negative blood cultures. I have emphatically stated a number of times that I do not believe that one is justified in opening a sinus as long as the blood culture is negative. I do not mean by this that no sinus infection is present, but as long as the blood cultures are negative, nature is doing all that is possible, and in many cases it is possible that a clot forms in the vein which eventually cuts off the infection from the general circulation. But the evidences of infection must be overcome in some way, for although most of these patients will recover after a stormy and prolonged convalescence, the probabilities are that they will be much devitalized. In such cases, transfusions have proved ideal. I shall cite two cases to illustrate this point.

CASE 1 About three years ago, I operated upon a little girl of eight years for bilateral mastoiditis. The disease had been present for some days before consent for operation was given, with the result that there was severe destruction on both sides and both sinuses were exposed. On the tenth day after operation, the child had a rise of temperature to 106 degrees F with a chill. Investigation showed a peritonsillar abscess on the left side which opened by itself with a subsidence of the temperature. The child left the hospital a few days later apparently in good condition. The day she got home, the temperature rose again. An intermittent temperature took place for four days in succession during which time the blood cultures remained negative. Was a sinus thrombosis present? On which side was it? Because of the negative blood cultures, I refused to explore the sinuses. I sent her back to the hospital on the fifth day, and had a transfusion performed from the father. The temperature dropped to normal and never rose again.

CASE 2 At about this same time, I was caring for a most puzzling post-operative mastoid case. Miss F. M., age 39, had developed an acute mastoiditis which offered no great difficulties at the time of operation. The sinus was not

exposed. At the end of the tenth day, she left the hospital apparently well. A few days later her family physician informed me that she was running a low irregular temperature. Suddenly she developed a temperature of 104 degrees F with a distinct chill. For the following two days the temperature was normal and then it rose to 104 degrees again accompanied by a chill. This same phenomenon occurred a number of times. The blood cultures were always negative. The blood count showed 6,000 white blood cells with 60% of polynuclears. Two internists examined her carefully for a possible malaria or typhoid fever. As she complained of pain below the mastoid wound I thought it best to open the wound. It was found to be clean and healthy. Between the rises of temperature, the patient felt well enough to be out of bed and to do some of her clerical work. There was never any definite headache, and her general condition did not seem to suffer. Eye examinations, nasal examinations, gynecological examinations were all negative. There seemed to be nothing to do other than to watch for some definite symptoms of sinus involvement. The case seemed to be one to be classified under the heading of 'protein fever' (whatever that may mean). Finally, after three weeks, I suggested a transfusion from her twin brother. About 500 c.c. of blood were given her. The following day, the temperature rose to 103 degrees, then returned to normal, where it remained until she was discharged from the hospital a week later. There has never been the slightest evidence of trouble since then.

These two cases indicate very clearly that blood transfusions should always be given in any cases in which there is an unexplained temperature after an operation upon the mastoid process. If the transfusion does no more than tone up the general system, so that the patient is able to withstand a further operation better, it will have accomplished a great deal. In pronounced cases of septacemia of otitic origin, after the jugular vein has been ligated, transfusion will often be able to give the necessary tonic to the blood and this is particularly so if the donor is immunized with the particular organism which is causing the infection in the recipient. Unger is doing some excellent work along these lines. In a later paper (*The Laryngoscope*, February, 1923) he concludes, "Many patients with a positive blood culture (after sinus operation) can be cured by blood transfusion. Blood of an ordinary strong, healthy individual is usually not sufficient. For these patients a donor should be used whose phagocytic index is high. The donor should be immunized by injecting huge doses of a vaccine prepared from the organism isolated from the patient's blood. While this autogenous immune donor is being prepared, the patient should be supported by one or more transfusions of blood from a heterogenous immune donor." I saw one

case, a patient of Dr. Daniel S. Dougherty, who was eventually cured in this way.

From the citation of the above cases, one is led to feel that whenever a double mastoid operation has been performed and evidences of sepsis develop after the operation, the safest and best procedure to resort to, especially if repeated blood cultures are negative, is a blood transfusion. But even more absorbing and interesting than these cases are the ones in which there is a positive blood culture and distinct evidences of a thrombosed condition of the vein. The question comes up as to which vein is involved. Certain symptoms may indicate one side or the other. One vein may have been more exposed than the other at the time of the original operation. The patient may have a rigidity of the neck on one side. Examination of the eye grounds may show an engorgement of the retinal veins on one side. If one wishes to investigate further by reopening and exposing the sinuses, he may find a more diseased condition on one side than on the other. If he is still in doubt he may penetrate the vein with a needle and withdraw some blood in a sterile syringe, send it to the laboratory and find out on which side there is a growth. On the other hand, he may surmise that either vein is at fault or, at the time of the second operation, he may find that one vein looks as bad as the other. Surely one does not want to run the risk of ligating the wrong vein or ligating both veins. At the 1923 meeting of the American Laryngological Rhinological and Otological Society, Dr. Harold G. Tobey, of Boston, reported a case of double sinus infection on which the sinus was opened by him on both sides. He observes that a careful review of the literature since 1896 reveals only three other cases of actual obliteration of both sinuses. In one of these cases, the left sigmoid sinus was opened and a thrombus removed without the jugular vein being tied off. Five days later a thrombus was removed from the right side and the jugular vein of that side ligated. The patient recovered. In a second case it would appear that both sinuses were opened without positive evidence of a clot and without ligation on either side and the patient recovered. In a third case, the right sinus was incised about three weeks after the primary mastoid operation and the jugular vein of that side tied and partially resected. No clot was found and there was free bleeding from the sinus. The left sinus was then incised and packed, but the jugular vein was not ligated. This patient recovered. Dr. Tobey's patient was subjected to a double mastoid operation, April 25th, 1918. Four weeks later the right sinus was opened and the internal jugular vein ligated. Six days later the left sinus was incised and packed off, but the jugular vein was not ligated, and after a prolonged illness this patient recovered. It should be noted that in

these four cases only one jugular vein was ligated. In the light of the more recently reported cases of recovery from lateral sinus infection in double mastoid cases wherein it was impossible to determine which sinus might be involved, it is a question whether, in the four cases enumerated above, the patients might not have recovered without being subjected to the extreme danger of opening both sinuses (Wendell C Phillips, *Jour of the A M A*, August 25, 1923)

I have felt for some time that blood transfusion would solve the problem of recovery in cases in which there was a positive blood culture, where it was impossible to determine which sinus was involved or if both sinuses were involved. During the past six months, two cases were under my care which proved to me that a transfusion should be performed in all doubtful cases, and that possible transfusion would make operative interference unnecessary. A citation of the cases follow. **CASE 1** A little girl of eight years was operated upon for bilateral mastoiditis. Both mastoid processes were the seat of very extensive pathological processes. Both sinuses were exposed. They appeared to be healthy. The temperature after the operation returned to normal on the fifth day, but then rose to 106 degrees and was accompanied by a chill. The third blood culture showed the presence of the streptococcus hemolyticus on the blood plates. The question then arose "Which sinus was involved?" Consultations were held, but no determinations could be made. An exploratory operation was decided upon. The vein on the right side which seemed more diseased at the time of the original operation, was first exposed. The wall of the vein appeared diseased. It seemed wise to open this sinus. At once there was a profuse flow of blood from both ends. The vein was packed and the other sinus investigated. This second vein looked as bad as the first one, but it was deemed wise to defer any further investigation. Neither jugular vein was ligated. Within twelve hours, the child was given a direct transfusion of 400 c.c. of whole blood. Within a few hours the temperature returned to nearly normal and within a few days the febrile process subsided entirely.

CASE 2 A little boy of eight was brought to New York to have his tonsils removed. He had previously suffered from infections of the ears. Two days after the tonsil operation there was a rise in temperature and eventually an acute otitis media developed, the organism being the streptococcus hemolyticus. Six days after his original ear infection both mastoid processes had to be opened. The infection had spread so rapidly that both sinus plates were involved and the sinuses exposed. They appeared to be healthy. For a few days after the mastoid operations, the child seemed to be doing well and then an intermittent temperature occurred. Blood cul-

tures were negative for a time, but eventually one showed the presence of a few colonies of the same organism which caused the middle ear infection. The question again arose as to which sinus might be involved. At the time of the original operation one sinus did not seem any more diseased than the other. The wounds were reopened, but nothing could be found which would justify the opening of the sinuses. The result was that the child was put back to bed in the same condition in which he entered the operating room. The following morning he was given a transfusion of 400 c.c. of whole blood. Within a short time, the temperature began to subside, and eventually he left the hospital in excellent condition.

In the first case, one might feel that a mural clot might have been present on the right side, and that this was washed out at the time the sinus was opened up. This is possible, but I feel that we were dealing with a diseased condition of the vein wall, perhaps on both sides, and that the transfusion did more than the operation to relieve the child of her serious symptoms. I am convinced that the second case was cured by the transfusion.

At a recent meeting of the New York Otological Society, McFarland reported two cases of double mastoiditis in which there were typical histories of lateral sinus involvement, and it was impossible to determine which sinus might be invaded. In both of these cases, several transfusions were given covering a period of ten days to two weeks, and both patients recovered. The positive symptoms stated by McFarland are the typical temperature range, leucocytosis and bacteremia. Phillips in reporting these two cases, states that he considers it advisable to resort to blood transfusion at the earliest possible moment after a diagnosis has been made even though subsequent ligation should be determined upon. Children will bear 300 c.c. to 400 c.c. of new blood without any discomforts, while adults will need larger amounts. Sometimes two, three and four transfusions have to be given and, in severe cases, the immunized donor will have to be used.

Unger (*Jour of the A. M. A.*, December 27, 1917) says, "Transfusion is often of assistance in overcoming intractable suppurative processes and causing a marked increase in the vitality of the patient. In bacteremias it has had practically no success. It is possible, however, that if immune donors are used the results might be better. Transfusion given preliminary to an operation will often so improve the patient's condition that the surgeon is justified in risking an operation. It will prolong the life of a patient suffering with a debilitating condition." In contravention to Dr. Unger's statement I have seen two cases of sepsis and McFarland has seen two others which have gotten well when transfusions were given. It may happen that

the sepsis associated with sinus thrombosis is different from the sepsis from other conditions, such as endocarditis for example. In these cases we have a definite focus of infection which can be sealed off from the general system by the natural formation of a clot within the vein, so that the primary object is to raise the resistance of the patient which a blood transfusion does more rapidly than anything else. In a recent discussion on this matter, a prominent bacteriologist gave the explanation as follows: That although blood transfusions will not cure an acute septic condition, it has a decided ameliorating influence upon subacute and chronic sepsis. In most mastoid conditions the patient has been suffering from a prodromal infection and, by the time the mastoid process is operated upon, a certain immunity has been developed in the individual and the bacteria have lost some of their virulence. In other words one is dealing with attenuated bacteria. The result is that, when a transfusion is performed in these cases, the resistance of the patient is greatly and rapidly increased, and he develops enough antibodies in his blood to kill the bacteria which are floating in the blood stream. As long as few or no more bacteria are eliminated from the original focus, the patient will get well.

CONCLUSIONS

- 1 The Unger method of blood transfusion is the simplest and the easiest to use in complicated mastoid cases.
- 2 Many patients with intermittent temperature after a mastoid operation do not necessarily have a sinus thrombosis.
- 3 Transfusions are of the greatest value in baffling cases.
- 4 Transfusion of blood will increase the vitality of the patient to be operated upon for a complication and is of equal value after the operation.
- 5 In bilateral mastoiditis, when one cannot decide which sinus may be involved, a transfusion may make an operation unnecessary.

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INSTRUCTIONS FOR USE OF THE UNGER TRANSFUSION INSTRUMENT

Articles Required (1) Two operating tables of the same level, or two beds, if the transfusion is done at the patient's home.

A board about 1 ft. by 3 ft. to be placed between the tables

A table for sterile materials

(2) An Unger transfusion apparatus and two Unger transfusion needles

One 20-cc. Luer syringe.

One 20-cc. Record syringe.

A No 17 French soft rubber catheter

Two artery clamps and one pair of scissors

Two tourniquets

Preparation Place the donor and recipient on the tables so that the head of the donor is opposite the feet of the recipient. Rest their arms on the board which is placed between the two tables. Sterilize the arms with iodine and drape properly with sterile sheets. On the central stopper of the stop-cock rub a very small amount of sterile vaseline. Work this in well by rotating the stopper several times.

Attach a 4-inch piece of a No 17 French soft rubber catheter (into which has been placed the curved connecting tip) to the recipient's outlet.

To the saline outlet, attach another piece of catheter

Attach the stop-cock to the pedestal and then firmly screw the assembled apparatus to that end of the board which is nearer the donor's head.

Technic The operator, who is standing next to the donor's head, places the cannulas (attached to the instrument) over the arms of donor and recipient. Move the arm, or even the entire body, so that the cannula lies parallel and over that part of the vein which is to be punctured. It is then certain that after inserting the cannula into the vein at this particular point no difficulty will be experienced in connecting the instrument to the cannula.

Via the saline outlet, force saline through both cannulas. Turn the stop-cock toward the donor. Put a tourniquet on the donor's and another on the recipient's arm. Insert the cannula into the recipient's vein (point it toward the heart). Remove recipient's tourniquet. After the assistant has injected saline to force out all air, the operator attaches the instrument to the recipient's cannula. From this time until the end of the transfusion the assistant continuously, but very slowly, injects saline. About one c.c. of saline is required to each 20 c.c. of blood transfusion. Insert the cannula into the donor's vein, pointing it against the blood stream away from the heart. Leave the tourniquet on the donor's arm. This direction of the needle gives the maximum flow of blood. If the blood spurts out of the cannula, connect it to the instrument. If the blood comes out drop by drop, do not make the connection. It is very important for the success of the transfusion to have a good flow of blood from the donor's cannula before connecting the latter to the instrument.

Insert the Record Syringe and aspirate blood. Turn the stopper and inject the blood. Continue this until the desired amount has been transfused. A nurse sprays ether on the outside of the Record Syringe. In this way only one record syringe is necessary, regardless of the amount of blood to be transfused. For this purpose use a small can of ether, in the top of which only one very small pin-point opening has been made. A hot towel wrapped around the can facilitates the spray.

the sepsis associated with sinus thrombosis is different from the sepsis from other conditions, such as endocarditis for example. In these cases we have a definite focus of infection which can be sealed off from the general system by the natural formation of a clot within the vein, so that the primary object is to raise the resistance of the patient which a blood transfusion does more rapidly than anything else. In a recent discussion on this matter, a prominent bacteriologist gave the explanation as follows. That although blood transfusions will not cure an acute septic condition, it has a decided ameliorating influence upon subacute and chronic sepsis. In most mastoid conditions the patient has been suffering from a prodromal infection and, by the time the mastoid process is operated upon, a certain immunity has been developed in the individual and the bacteria have lost some of their virulence. In other words one is dealing with attenuated bacteria. The result is that, when a transfusion is performed in these cases, the resistance of the patient is greatly and rapidly increased, and he develops enough antibodies in his blood to kill the bacteria which are floating in the blood stream. As long as few or no more bacteria are eliminated from the original focus, the patient will get well.

CONCLUSIONS

- 1 The Unger method of blood transfusion is the simplest and the easiest to use in complicated mastoid cases
- 2 Many patients with intermittent temperature after a mastoid operation do not necessarily have a sinus thrombosis
- 3 Transfusions are of the greatest value in baffling cases
- 4 Transfusion of blood will increase the vitality of the patient to be operated upon for a complication and is of equal value after the operation
- 5 In bilateral mastoiditis, when one cannot decide which sinus may be involved, a transfusion may make an operation unnecessary

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INSTRUCTIONS FOR USE OF THE UNGER TRANSFUSION INSTRUMENT

Articles Required (1) Two operating tables of the same level, or two beds, if the transfusion is done at the patient's home.

A board about 1 ft by 3 ft. to be placed between the tables

A table for sterile materials.

(2) An Unger transfusion apparatus and two Unger transfusion needles

One 20-cc. Luer syringe.

One 20-cc. Record syringe.

A No 17 French soft rubber catheter

Two artery clamps and one pair of scissors.

Two tourniquets

Preparation Place the donor and recipient on the tables so that the head of the donor is opposite the feet of the recipient. Rest their arms on the board which is placed between the two tables. Sterilize the arms with iodine and drape properly with sterile sheets. On the central stopper of the stop-cock rub a very small amount of sterile vaseline. Work this in well by rotating the stopper several times.

Attach a 4-inch piece of a No 17 French soft rubber catheter (into which has been placed the curved connecting tip) to the recipient's outlet.

To the saline outlet, attach another piece of catheter

Attach the stop-cock to the pedestal and then firmly screw the assembled apparatus to that end of the board which is nearer the donor's head.

Technic The operator, who is standing next to the donor's head, places the cannulas (attached to the instrument) over the arms of donor and recipient. Move the arm, or even the entire body, so that the cannula lies parallel and over that part of the vein which is to be punctured. It is then certain that after inserting the cannula into the vein at this particular point no difficulty will be experienced in connecting the instrument to the cannula.

Via the saline outlet, force saline through both cannulas. Turn the stop-cock toward the donor. Put a tourniquet on the donor's and another on the recipient's arm. Insert the cannula into the recipient's vein (point it toward the heart). Remove recipient's tourniquet. After the assistant has injected saline to force out all air, the operator attaches the instrument to the recipient's cannula. From this time until the end of the transfusion the assistant continuously, but very slowly, injects saline. About one c.c. of saline is required to each 20 c.c. of blood transfusion. Insert the cannula into the donor's vein, pointing it against the blood stream, away from the heart. Leave the tourniquet on the donor's arm. This direction of the needle gives the maximum flow of blood. If the blood spurts out of the cannula, connect it to the instrument. If the blood comes out drop by drop, do not make the connection. It is very important for the success of the transfusion to have a good flow of blood from the donor's cannula before connecting the latter to the instrument.

Insert the Record Syringe and aspirate blood. Turn the stopper and inject the blood. Continue this until the desired amount has been transfused. A nurse sprays ether on the outside of the Record Syringe. In this way only one record syringe is necessary, regardless of the amount of blood to be transfused. For this purpose use a small can of ether, in the top of which only one very small pin-point opening has been made. A hot towel wrapped around the can facilitates the spray

the tissues, the field block will be found of great utility

Field Block This method is well adapted to the major bladder technics such as resections, with deperitonealization as recommended by Voelcker, the diverticulum methods of Lower and others. The transperitoneal resection of Delbru, and the methods in the removal of tumors high up in the bladder as recommended by McCarthy, Scholl and others are readily accomplished under field block. The lower third of the ureter is also readily treated as suggested by Beer, for removal of calculi.

We feel that the deperitonealization methods recently suggested by Voelker represent the greatest achievement made in bladder surgery in many years. Our ability to carry out these technics under local anesthesia presents very great possibilities to the progressive urologists.

Haslinger, Labat and Swartzwold believe that any injections made in the line of incision reduce the vitality of the tissues when placed in contact, with septic bladder contents. While we have not noticed instances of this kind, the experience of these eminent students is deserving of considerable weight. There are three kinds of field block commonly employed, their introduction being largely due to the labors of Hackenbruch, Illyes and Labat. In the one hundred bladder operations listed at the end of this article, all three types have been utilized. The more extensive lesions as best performed under the wide blocks as recommended by Illyes and Labat. Field block is a typical example of conduction anesthesia. In other words, we build a wall of anesthetic fluid which surrounds the nerves in their course and quite thoroughly prevents the passage of impulses.

As can readily be seen, the abdominal wall is quite an ideal place to use this form of anesthesia. We find that much of the innervation occurs from the lateral aspects and is practically in parallel lines. In this connection let it be said that it is well in attempting any local or regional anesthesia to have clearly in ones mind the nerve distribution. This combined with a little patience will prove itself a most valuable adjunct in these procedures.

Type one This method as now practiced is very similar to that originally proposed by Hackenbruch. Its adaption to suprapubic bladder operations is simple and effectual. A superficial wheal is made in the midline of the abdomen an inch and a half or so below the navel. A second wheal is made in the midline about an inch above the symphysis pubis. A lateral wheal is made at the outer border of each rectus muscle and midway between the pubic and subnavel wheals. These punctures now form quite distinctly the points of a rhombus, and it is hence sometimes called the rhombus method. At each wheal a ten cm needle is inserted and thrust directly



FIGURE I
Suprapubic field block. Type 1

downward, injecting as we go until the aponeurosis is perforated. At the point of perforation a few cc of the Neocaine is injected and fanwise injections are then made toward the poles and the central area. Injections are then also made subcutaneously connecting all the points. Upon completion of the above ten cc of fluid is injected through the lower wheal into the space of Retzius.

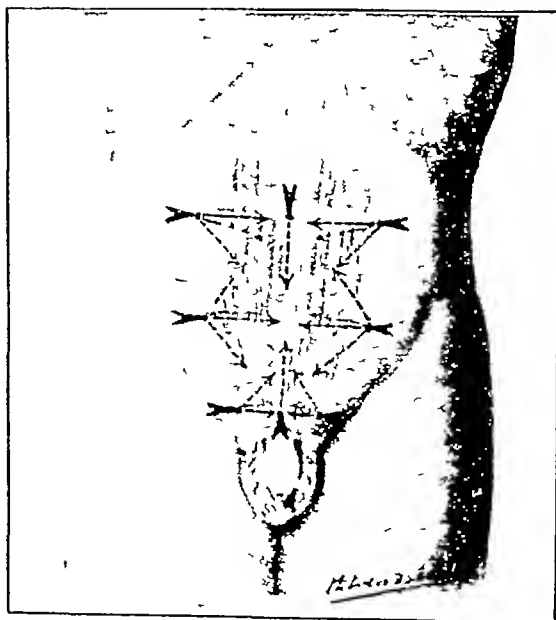


FIGURE II
Suprapubic field block. Type 2

serve force. Here we have a vitally important factor, which must influence us in the choice of anesthesia. In perhaps no other class of patients will the baneful effects of narcosis be so pronounced as happens at times in maladies of the urinary tract. Having noted the principal indications for the use of local anesthesia, you will naturally say, what are its contraindications?

There are but one or two factors which militate against its use. They are first, the absence of one who is experienced in the use of this technic, second, the speed mania, as local anesthesia is in no wise compatible with haste. It is extremely difficult, in fact, well nigh impossible, except in a few instances, to anesthetize against pulling and tearing. Great care and gentle handling of the tissue will aid greatly in opening the gates of success.

Choice of an Anesthetic

Many drugs have been employed in Bladder Anesthesia. Cocaine is highly toxic, and we will content ourselves with its mere mention. We have found Neocaine most useful and its action is uniform. In considering the drug to be used, heed should be given to the following points:

- 1 The substance must be less toxic than cocaine.
- 2 The agent must not cause irritation or tissue injury.
- 3 It must be soluble in water, and the solution be stable and possible of sterilization on boiling.
- 4 It should be able to penetrate rapidly.

METHOD OF ADMINISTRATION

It has been our custom for some time to employ the excellent syringes and needles designed by Dr. Labat, and Neocaine as the anesthetic agent. There is still much discussion as to the preparation of the anesthetic. As you will remember, Laewen, in his early experiments, found that by the use of sodium bicarbonate an increased diffusion was obtained. Many surgeons of prominence believe that a small amount of suprarenin should be added, in addition to the bicarbonate. Braun, Labat, Illyes, Jones and others are included in this group. On the other hand, Lowsley¹⁴, Meyer¹⁵ and Schmidt¹⁶ hold that suprarenin increases the toxicity.

Our belief, based on a large clinical experience, convinces us that best results are obtained from a freshly prepared one percent solution of Neocaine. Some of our associates believe that better results are obtained with larger amounts of a $\frac{1}{2}$ percent solution.

PREOPERATIVE MEDICATION

Preparation for anesthesia is essentially that of other urologic procedures. No preliminary narcotization in the form of morphia, scopolamin or other sedative drug is employed, except in the

highly nervous type of patient. This class, however, is not well adapted to local anesthesia.

Forty-eight hours before operation, the patient is given thirty grains of sodium bicarb. If the gastro-intestinal tract is disturbed he is given a five percent solution of the drug by rectum. Twenty-four hours before operation, the patient receives a purgative and he is allowed to have as peaceful a night as possible before operation. If the renal function is found to be not good, the operation is postponed.

ANESTHETIC METHODS

In surgery of the bladder we may apply our anesthesia in the form of

- 1 Terminal or infiltration anesthesia
- 2 Field block
- 3 Sacral anesthesia, usually combined with one of the former
- 4 Spinal anesthesia

Close observation of many cases has convinced us that it is to the best interest of the patient to have our infiltrations as far as possible from the large nerve centers. With this idea we have endeavored to utilize as far as practicable the terminal and field block methods. Spinal anesthesia is extensively used unilaterally by Chute¹⁷, Babcock¹⁸, Rytina¹⁹, Tolson and others with excellent results. We have, however, not been so fortunate, nor have our associates, in the avoidance of unpleasant incidents in connection with spinal anesthesia.

OPERATIVE PROCEDURES

In view of the length of this program, we shall eliminate the technique of cystoscopy and intravesical manipulations and consider at once its major procedures.

SUPRAPUBIC CYSTOTOMY

In practically every operation involving an opening of the bladder by the suprapubic route, we resort to the use of local anesthesia. In experienced hands the lack of postoperative shock and the absence of any irritating effects on the urinary apparatus, particularly the kidney, is sufficient justification for its use. We employ several forms of local anesthesia, depending largely on the nature of the operation, as follows:

Infiltration anesthesia may be utilized by means of the layer by layer method, or by those technics recommended by Farr. For the location of the incision either the middle line or an incision over the rectum may be employed. In view of the tendency to wound hernia in elderly men, we favor the separation of the rectus muscle. Single infiltration is applicable to single cystotomies as in a first stage prostatectomy, the removal of stone, etc., without complications. Where one finds it necessary to resort to more extensive dissections, with much retraction of

BLADDER OPERATIONS UNDER LOCAL ANESTHESIA

No of Cases	Average Age	Diagnosis	Type of Operation	Anesthesia	Post Oper Re-action	Result of Anesthesia
14	49	Stone in Bladder	Lithopaxy	Sacral	None	Excellent
9	52	Stone in Bladder	Suprapubic Cystotomy	Suprapubic field block	None	Excellent
2	66	Stone in Bladder	Perineal Cystotomy	Sacral Anesthesia	None	Excellent
4	38	Stricture of Urethra	Retrograde Catheterisation	Suprapubic field block and Sacral	None	Excellent
4	42	Tumor Bladder Dome	Deperitonealisation resection	Suprapubic field block and Sacral	None	Two cases were sensitive on stripping Inhalations
3	54	Tumor Bladder Post Wall	Transperitoneal resection	Suprapubic field block and Sacral	None	Complete anesthesia in 2 cases, third required inhalation
8	40	Tumor of Bladder Base	Extra Peritoneal removal	Suprapubic block and Sacral	None	Six complete anesthetics, 2 inhalations required
3	32	Diverticulum	1 Transvesical } Resection	Suprapubic field block and Sacral	None	Excellent
7	41	Ureterotomy	2 Extravesical } Lower ureter and beer Type Incision	Suprapubic field block	None	Slight pain in exposing ureter in 4 Small amount of ether
12	58	Bladder Carcinoma	Suprapubic cystotomy with radium	Suprapubic field block	None	Excellent
34	39	Varied Bladder Lesions	Cystoscopic manipulations	Sacral Anesthesia	None	Incomplete anesthesia in 3

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Type two This represents the author's modification of the Illyes block. Briefly this is as follows. Eight wheals are made in the corium. The first one and a half inches below the umbilicus in the median line. A second just above the pubic symphysis. Three wheals are then made at the outer border of each rectus muscle, one close to the pubic arch, one just below the umbilical level and a third midway between the two. At each of these points we penetrate the aporemosis and inject a few cc of the anesthetic fluid. Fanwise injections are then made submuscularly and subcutaneously, connecting the points of puncture. Through the lateral wheals injections are also made up and down the rectus border. Through the upper midline wheal injections are made downward and laterally. Through the lower midline wheal the space of Retzius is injected with about ten cc of one percent Neocaine.

Type three The introduction of this particular type is largely due to the studies of Labat. It is both simple and effectual. It is of very great value in practically every operation on the urinary bladder by the suprapubic route. It has been our custom to carry out this procedure with slight modifications essentially as follows. Wheals are made just above each pubic spine at the outer rectus border. Another wheal is placed in the same just below the navel area, while the third is made midway between the two. Subcutaneous and submuscular injections are made fanwise all along the lateral border of the rectus as described in the type block two. The space of Retzius is also injected in the same manner. We have utilized this technic in a large number of operations performed by various surgeons. Some of the cases were rather extensive resections, involving the vault of the bladder, and it has proved most satisfactory. In all operative procedures on the bladder other than a single cystotomy, it is advis-

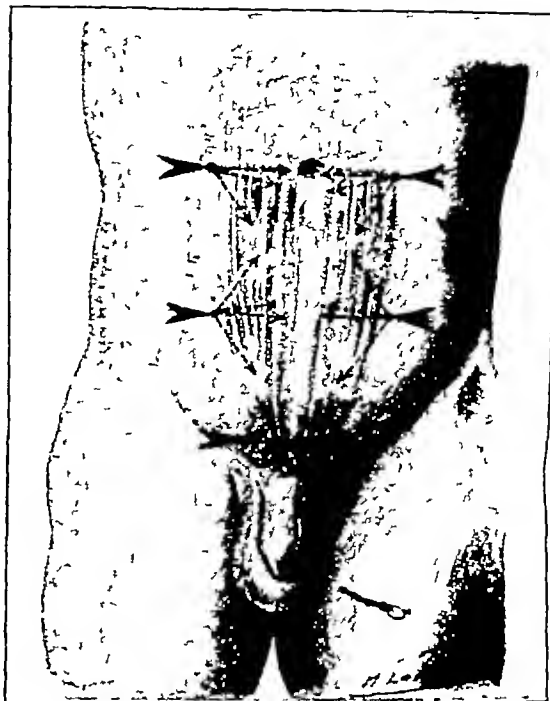


FIGURE III
Suprapubic field block. Type 3

able to precede the field block with sacral anesthesia. This as a rule will with proper care and technic give us a painless operative field. One, however, at times sees a case in which there is a certain amount of bladder sensation in spite of the utmost care. This is particularly true where we are attacking the peritoneal surfaces, or its immediate vicinity. We have so frequently discussed the sacral technics that we shall omit them here. The appended table shows the results of regional anesthesia in 100 bladder operations covering a period of a little over three years.

NORMAL WEIGHTS AT DIFFERENT AGE PERIODS

Height	Average Chest Circumference	Age 20	Age 22	Age 25	Age 30	Age 35	Age 40	Age 45	Age 50	Age 60
5 ft. 0 in.	32 in.	110	112	116	118	116	112	112	110	110
5 ft. 1 in.	33 in.	116	118	121	122	120	118	118	116	114
5 ft. 2 in.	34 in.	122	123	125	125	124	122	120	118	116
5 ft. 3 in.	35 in.	130	132	135	135	132	130	128	126	125
5 ft. 4 in.	36 in.	134	136	139	139	138	136	134	132	130
5 ft. 5 in.	37 in.	138	140	143	143	140	138	136	134	132
5 ft. 6 in.	38 in.	142	144	147	147	145	142	140	138	136
5 ft. 7 in.	38 in.	146	148	152	152	150	148	145	143	141
5 ft. 8 in.	38½ in.	150	152	155	155	152	150	148	146	144
5 ft. 9 in.	38½ in.	155	158	162	162	160	158	155	152	150
5 ft. 10 in.	39½ in.	160	162	165	165	164	162	158	156	154
5 ft. 11 in.	41 in.	168	170	174	174	172	170	166	164	163
6 ft. 0 in.	42 in.	172	175	178	178	175	173	170	168	167
6 ft. 1 in.	44 in.	178	182	184	184	182	178	176	174	173
6 ft. 2 in.	46 in.	185	190	192	194	190	188	182	180	178

tibias Still unable to touch heels on floor, but can stand on toes There is less tenderness over all muscles

In one week the tenderness in legs and forearms had disappeared, but child was very weak Eleven days after admission the eosinophiles were 56% and on March 19 were 71% The boy made a slow but steady improvement and left the hospital on March 31, 1924 On May 2, 1924, he complained of some pain in his right leg Leucocytes, 8,300 Eosinophiles, 15% On July 28, 1924, his blood showed Erythrocytes 4,480,000, Leucocytes 7,450, Hemoglobin 69%, Eosinophiles 7%

R D Sister of F D Age 8 years Complained of pain in forearms and calves of legs Unable to place heels on floor Eyes have been quite prominent for five days

Physical Examination

Well nourished and developed young girl, rather pale but does not seem to be having pain

Head Symmetrical Scalp Normal

Eyes Pupils equal, regular and react normally to light and accommodation Conjunctivae negative Eyeball somewhat prominent and there is slight edema about the eyes

Nose negative Mouth Teeth in fair condition, Tongue clear, Throat negative Neck No palpable glands, no pulsations

Chest Well developed Respiratory excursion good Breath sounds normal No rales heard Heart sounds regular No murmurs detected

Extremities Forearms both tender and muscles seem spastic, cannot fully extend forearms Veins of arms very prominent

Legs Calves of legs very tender and slightly oedemations When child stands up she stands on her toes and cannot put heels on the floor Veins prominent

Reflexes Knee jerks absent

The urine was negative for albumen and sugar but contained many white blood cells The number of cells in the urine became less during the stay in the hospital

The Wasserman reaction was negative with plain alcoholic antigen but 4 plus with the cholesterinized antigen The State Health Bureau found the Wasserman negative by both antigens The spinal fluid also gave a negative Wasserman

Trichinella Spiralis found in centrifuged spinal fluid Blood count Erythrocytes, 3,410,000, Leucocytes, 12,300

Differential count Neutrophils 60%, Lymphocytes 35%, Basophiles 1%, Myeloid cells 4%

The subsequent course in the hospital was much the same as that of the brother On the eleventh day it was also found that the

eosinophiles had increased to 50%, the white count being, 20,000

She was discharged on the 33rd day to report to the Out Patient Department Was seen again on July 25th At that time there was no tenderness The heart showed a faint systolic murmur at the apex but was regular in rhythm and rate Hair had fallen out to some extent

At that date the red cells were 5,800,000, Leucocytes 5,500, hemoglobin 65%, Eosinophiles 7%

The mother was admitted to the hospital and although the parasites were not found we were certain that she had also been infected with trichinosis

The history of the sister that died gave the same group of symptoms and it is safe to assume that she also had the disease

One other child had swelling about the eyes but no history of muscle tenderness There is no doubt that four in this family, one adult and three children had trichinosis

It was also learned that the whole family had eaten home made sausages previous to the onset of the symptoms The pork had been purchased at a local market The exact time of the purchase or when the sausage was made could not be learned Of course they were of the opinion that it had been sufficiently cooked

It is interesting to know that in January, 1924, five positive cases and one suspicious case of trichinosis were reported to the Rochester Health Bureau Three of these cases died They were all infected from the same source

Further facts regarding these cases are not available and they are reported for record only

In September, 1923, another case was discovered, the diagnosis being made on the medical service at the General Hospital by finding that trichinella in the spinal fluid

This patient was a female aged 48 years The differential count showed 62% of eosinophiles Recovery was uneventful

ETIOLOGY

The parasite, *Trichinella Spiralis*, was discovered in 1835 by Paget, who was then a medical student working in a London dissecting room It was not until 1860 that it was showed by Zenker to be the cause of the disease, trichinosis

Some of the facts regarding this parasite are well worth considering It is practically always introduced into the human body by infected pork although one series reported in this country was due to infected beef The parasite is found in rats, hogs, dogs, mice, rabbits and occasionally in other lower animals It is by the rat and the hog that the disease is kept in existence From 50 to 100%

TRICHINOSIS IN CHILDREN *

By JOHN AIKMAN, M.D.,

ROCHESTER, N. Y.

WHILE trichinosis is a rare disease in this country recent experiences in this state have demonstrated that one must always be on the outlook for the condition, especially among foreigners who are in the habit of eating poorly cooked pork.

Owing to the fact that small children do not, as a rule, eat pork, trichinosis is rarely found in childhood. For the same reason very little regarding the condition is to be found in text books on Pediatrics. However, three of the four cases to be reported were children, which shows that we must be on the outlook for the disease, especially among foreign children who may at an early age eat the same food as the adult members of the family.

Since so little is to be found in works on Pediatrics regarding the condition, it would seem worth while to give a general description of this interesting disease while reporting this group of cases.

Two of the four cases here reported are interesting because of the absence of eosinophilia and because the diagnosis was proved by finding the trichinella in the spinal fluid. As eosinophilia probably leads to the diagnosis in the majority of cases it is considered by many to be a constant factor. These cases prove that a low eosinophile count does not rule out the disease in a suspected case. The diagnosis was probably missed in an earlier case in this group because too much dependence was placed on the blood picture.

The cases here reported were first seen by the writer on February 27, 1924. The mother and three children had been taken ill about 3½ weeks before. The family were Italians and gave a very unsatisfactory history. One of the children, age 10 years, had died that morning at another hospital and had complained of general pains and symptoms similar to those of the other children. It was learned later that this child had a low eosinophile count and was thought to have died of rheumatism. One other child had been slightly ill, but the rest of the family were well. Severe pains in the forearms and calves of the legs had been present for several days. The children could stand and walk on their toes, but could not place their heels on the floor. They denied having had any intestinal symptoms.

The mother and one of the children had several days before shown swelling about the eyes. They denied having eaten raw meat. No history of previous diseases could be obtained in any of cases.

Scant as the history was it strongly suggested

that all had been made ill by the same agent, probably an unusually infectious disease.

A tentative diagnosis of Trichinosis was made and the children were transferred to the General Hospital.

Physical Examination

F. D. Boy, age 12 years. Fairly well nourished and developed. Pasty in color. Is dull and apathetic. Does not respond readily to questions.

Head Symmetrical, no injuries. Scalp negative.

Eyes Pupils equal and regular, appear slightly dilated but react to light and accommodation. The eyeballs appear a little prominent and the lids are discolored. Conjunctivae clear.

Nose No deformity, no obstruction, no discharge.

Mouth Teeth in fair condition. Mucous membranes slightly pale. Tongue, coated.

Throat Negative. Neck Few small glands palpable on both sides, no abnormal pulsations. No tenderness.

Chest Well developed.

Lungs Respiratory excursion good, equal on both sides. Percussion normal. Breath and voice sounds normal. No rales heard.

Heart Rate 124, regular, no murmurs detected.

Abdomen Slightly distended and shows moderate generalized tenderness. No masses palpated.

Extremities Arms Some spasm of muscles of forearm, cannot be fully extended. General tenderness of forearm less in upper arm. Veins are markedly distended. Legs Some oedema of lower leg. Calves very tender. Legs cannot be extended. Feet, held in extension, cannot be flexed on ankle. Back held rigidly and patient cannot straighten up. Cannot sit up. Lower thoracic and lumbar regions quite oedematous.

The urine contained a few white blood cells, but was otherwise negative. The blood showed 4,210,000 erythrocytes per c. mm. Leucocytes, 6,100, Hemoglobin, 65% differential count. Neutrophils, 69% Lymphocytes, 30% Eosinophiles, 1% Spinal fluid Clear, colorless, ± Pandy 6 Lymphocytes per c. m. Trichinella spiralis larva found. Wasserman reaction of blood negative to both antigens. Spinal fluid also negative to both antigens.

X-Ray Muscles of leg. No areas of calcification.

Feb. 29 Veins of arms while not distended are very much more prominent than in normal child of this age. Arms and legs have a full, tense feeling and legs show slight edema over

*Read at the Annual Meeting of the Medical Society of the State of New York at Syracuse May 13 1925

val hemorrhages may occur as well as nose bleed

Bronchitis and dyspnea may occur. The patient is dull and may even be delirious. The tendon reflexes are usually lost. The urine shows albumen, hyaline and finely granular casts.

(3) Stage of Encystment

At the end of about four weeks improvement begins. The temperature returns to normal and the muscles become less swollen and tender. The patient is as a rule emaciated and anaemic and the facial edema remains for some time. A milium eruption and pruritis may occur. Convalescence is long drawn out and weakness persists for several months.

Children as a rule run a milder course which Van Cott and Lintz attribute to the fact that they would be likely to eat a smaller amount of pork. The amount taken being considered the most important factor.

DIAGNOSIS

When other cases have recently occurred in a locality the diagnosis is fairly easy. Usually there are several cases in the same family group. The similarity of the symptoms in several cases should at once point to an infectious disease. The fever is frequently mistaken for typhoid and the pain for rheumatism. The pain is however more marked in the muscles and only acute neuritis gives as severe pain on pressure. If a history of eating poorly cooked meat can be obtained one is relatively certain of the diagnosis.

We have been taught to expect a very high eosinophilia but this may be absent. Usually the eosinophilia persists for months. Block and others have called attention to the low eosinophile count that may be found in the acute stage of the disease, this count increasing during convalescence. The disease should not be excluded by a low eosinophile count but a high eosinophile count points strongly toward trichinosis. Opie claims that the more severe the infection the lower we may find the eosinophiles.

The leucocytes run from 25,000 to 30,000 per cubic millimeter.

The parasites may be found in the stools but are more often missed. The embryos have been found in the blood stream.

In 1913 Van Cott and Lintz first found trichinae in the cerebro spinal fluid 21 days after the infection had occurred. Since that time a number of men have made the same findings and it has become a very valuable method of detecting the presence of the disease, especially in the period of dissemination.

While some are doubtful of the value of this method of making the diagnosis it has proved of great value to us especially in the

presence of a low eosinophile count. No one method need be used to the exclusion of all others and cerebro spinal fluid examination is of great assistance in some cases. It has the advantage of being more easily and quickly done than the examination of a piece of muscle. After the fifth week the encysted embryos can be found in the muscle.

PROPHYLAXIS

It would at once seem that proper meat inspection would prevent the disease but this cannot be depended upon to rule out the presence of the parasite. The examination must be microscopic. The hog is a large animal and the portion containing the worms may easily be missed.

The disease would be eliminated if people would stop eating raw or poorly cooked meat. Wide publicity of the dangers of eating poorly cooked food should be disseminated and prepared foods such as sausage should be kept from sale unless properly cooked. It is not necessary here to give the figures of investigations as to the time and temperature required for pieces of any certain size, but such investigations have been carried out by our Government, and the results are available. It is obvious that it takes very much longer for heat to penetrate the center of a large mass of meat and destroy the parasite than it would take for a slice of ham.

When cases occur, the pork, usually sausage, should be traced back to its original source. It is very difficult to trace the source of infected meat, as the store-keepers buy from different sources at different times, and are unable to tell from whom the meat was originally purchased. By the time the infection is discovered most of the details of the purchase have been forgotten. Only by keeping a record of the sale of pork in the public market and of retail sales by store-keepers could these cases be traced back.

PROGNOSIS

The severity of the disease depends on the number of living worms taken. The mortality is less in children, probably because they eat less of the pork than do the adults. Early vomiting and diarrhoea often reduce the intensity of the infection.

In Ransom's tabulation of 320 cases reported in the United States from 1909-1914 the mortality was 6 per cent. All the reported cases in the United States, 1550 in number, had a mortality of 16 per cent. This high rate is probably due to the failure to report mild cases. In Germany the mortality is given as 5 per cent. While trichinosis has a fairly high death rate, it also causes long debility and economic loss.

of rats about slaughter houses have been found infected. This is due to the fact that the rats eat trichinous pork. If hogs are kept near such slaughter houses they in turn eat the rats or may eat scraps of pork and so the disease is kept alive until this circle is broken. Man becomes a host only by accident and does not pass the disease on to others.

The *trichinella spiralis* is from 1 m m to 3 m m in length. In the adult and sexual condition it lives in the intestine of its host. The female gives birth to at least 1,000 to 1,500 young.

When trichinous meat is eaten the cyst holding the parasite is digested and the worm is liberated. It has been estimated that infested pork may harbor 85,000 encysted worms to an ounce.

The fertilized females burrow into the mucosa of the intestine and discharge the numerous embryos into the lymph spaces of the mucosa and submucosa. It is then probably that they travel with the lymph to the thoracic duct and to the right heart. The embryos are smaller than red blood cells and they are easily carried by the general circulation to the striated muscles where they elect to remain and penetrate into or between the muscle fibers.

In nine or ten days many have reached the muscles where they grow rapidly. In one month the worm begins to encyst which process takes from 8 to 12 weeks. Here they may live from 20 to 30 years. The life activity ends unless the meat is eaten, when this occurs the cycle begins again. The parasite is able to pass both the sexual and asexual stages in the same host.

At least 100,000,000 encysted worms have been estimated to be present in one ounce of muscle in a human subject.

It has been found by microscopic examination that from 1 to 3% of hogs contain the parasite. It is common throughout the world.

The outbreaks in this state have occurred mostly among the foreign population especially those who are in the habit of eating poorly cooked pork usually in the form of sausage. When the sausage is made in the home or in a small market all of the meat is likely to come from one animal and the infection is more concentrated than if the trichinous pork were mixed with good pork. Hence sausage from large establishments is not as apt to give intense infections. Chapin and Pisek call attention to the liability of infection on farms when home cured pork is eaten.

Ranson found 1,558 cases on record in the United States between 1842 and 1914, New York led with 355 cases. It is common in Germany.

Williams making a special search for trichinae found them in 5.34% of 505 post-mortem

examinations in Baltimore, Philadelphia, Detroit and Denver, none of these subjects died of trichinosis.

Some investigators claim that from $\frac{1}{2}$ to 2% of all human bodies contain trichinella. This is based on autopsy figures. Of course such figures would depend on the country, the nationality of the subjects, the general public health and the care with which investigations were carried out. If such figures even approach accuracy it is evident that in only a small number of cases infected with trichinella is the infection severe enough to produce symptoms. Moore states that when a limited number of encysted larvae are eaten only a few embryos enter the muscles and no symptoms are produced.

The capsule protects the worm from salt and antiseptics, but heating trichina to 122° F will kill the parasite in 10 minutes. Exposure to 12° F for 15 days while it did not kill the parasite, rendered the infection less severe.

The adult worms produce their effects in the intestine and the muscular, symptoms are caused by the embryos. The adult worm dies after 6 to 7 weeks and are probably digested as they are rarely found in the stools.

The embryos are most numerous in the muscles having the best blood supply, the diaphragm, intercostal muscles, muscles of the neck, larynx, tongue and eyes. They may even be found in the heart muscles. They may be found practically in any tissue, and can be detected in the pleural and peritoneal cavities. They are numerous in mother's milk but are not found in urine.

They do not complete their development and encystment in anything except striated muscle.

History—As the cases reported do not present the typical symptoms of the disease it will be of advantage to mention the usual findings. The symptoms may be divided according to Whitmore, into 3 stages following the development of the parasite. (1) Stage of Intestinal Infestation. Nausea, vomiting, abdominal pain and diarrhoea may begin a few hours after the meat is eaten. The temperature may rise to 102 to 104. The diarrhoea increases and the stools may contain blood and mucus. Prostration is marked. Pain and stiffness of the muscles and occasionally twitching are noted early. It may be 7 to 9 days before the symptoms develop.

The second stage of dissemination begins by the end of the first week while the embryos are invading the lymph and blood streams. It is marked by edema especially of the face. High temperature with morning remissions. Profuse sweating is present. The severe muscular pains cause flexion and contractures. The muscles are stiff, hard and tender. Even the eye muscles are affected and subconjuncti-

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THE NEW YEAR

To the medical profession of New York State we extend a New Year's greeting

Another year, in its beginning, must inspire every one of us with resolves for betterment

Nineteen hundred and twenty-six should be a year of accomplishment. As a profession we should be unified in resolve, strengthening the hands of leadership with no obstructive love of self

We stand primarily for service, and whatever contributes either in scientific improvement or

medical advance is another step forward for the economic welfare of the community

Times are changing, and the practice of medicine is changing likewise. In an age of specialties let us not depart from the basic study of the fundamentals, which are the real meat of medicine. Let us take advantage of every method of relieving human pain, but in no wise be carried away by the wail of the quack and the charlatan.

In addition, let us add to the intelligent study and treatment of disease a pleasing personality, and we will find nineteen hundred and twenty-six a well-rounded year

TREATMENT

If a patient is seen early enough it would be of advantage to wash out the stomach. Cathartics given early help to remove the infection. Thymol may help if given early, and thymol in sterile olive oil (gr 1 in 1 cc of oil) has been used subcutaneously and intramuscularly by Booth.

Salzer treated 14 cases of trichinosis successfully with convalescent serum.

Generally, however, the treatment is symptomatic.

CONCLUSIONS

Ten cases of trichinosis were found in Rochester from September, 1923, to February, 1924.

It is apt to be found among the Italian population, who are in the habit of eating poorly cooked pork, chiefly as sausage.

The disease may occur among children in Italian families and should always be suspected when symptoms of severe muscular tenderness are present.

The disease cannot be ruled out by a low

eosinophile count, because this may be present during the acute stage.

In many cases the diagnosis may be cleared up by spinal puncture and examination of centrifuged spinal fluid.

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Deaths

BRILL, NATHAN EDWIN, New York City, New York University, 1880, Fellow American Medical Association, American Neurological Association, American Public Health Association, Member State Society, Alumni Association Bellevue Hospital, New York Academy of Medicine, Consulting Physician Mt Sinai Hospital. Died December 13, 1925.

BURKE, MICHAEL JOSEPH, New York City, New York University, 1875, Member State Society. Died November 27, 1925.

FOSTER, GEORGE VICKERY, New York City, Dartmouth, 1881, Fellow American Medical Association, New York Academy of Medicine, Member State Society. Died December 16, 1925.

JONES, WILLIAM J, Syracuse, Albany Medical College, 1913, Member State Society, Neurologist, Psychiatrist and Roentgenologist General Hospital. Died October 30, 1925.

KAY, CYRUS, Herkimer, College of Physicians and Surgeons of New York, 1880, Member State Society, Physician Emergency Hospital. Died November 13, 1925.

LITTLE, GEORGE FRENCH, Brooklyn, College of Physicians and Surgeons of New York, 1895, Fellow American Medical Association, Fellow American College of Physicians, New York Academy of Medicine, Member State Society, Brooklyn Pediatric Society, Brooklyn Patho-

logical Society, Senior Visiting Pediatrician Kings County Hospital, Pediatrician Mercy Hospital, Hempstead. Died December 5, 1925.

MACDONALD, JOSEPH, New York City, Medico-Chirurgical, Philadelphia, 1903, Member State Society. Died December 5, 1925.

OTIS, JOHN CALHOUN, Poughkeepsie, New York Homeopathic and University of Vermont, 1868, Fellow American Medical Association, Member State Society, Poughkeepsie Academy of Medicine. Died October, 1925.

ROSIN, CLIFTON MEARS, New York City, Bennett, 1907, Fellow American Medical Association, Member State Society. Died November 24, 1925.

ROTH, JOSEPH C, Syracuse, New York University, 1886, Fellow American Medical Association, Syracuse Academy of Medicine, Member State Society, Adjutant Surgeon General Hospital. Died December 19, 1925.

RYON, WALTER GOHRING, Poughkeepsie, College of Physicians and Surgeons of New York, 1896, Fellow American Medical Association, American Psychiatric Association, Member State Society, Superintendent Hudson River State Hospital. Died December 6, 1925.

ZITZ, FRANK H, New York City, College of Physicians and Surgeons of New York, 1888, Member State Society, Alumni Association Lenox Hill Hospital. Died November 26, 1925.

forms Curative medicine can be practiced by individual doctors with small regard for their confreres or the public generally The practice of preventive and promotive medicine requires organization These forms of medicine can be practiced by doctors in private practice by means of their organized medical societies One of the greatest fields of activity of medical societies is the practice of civic medicine Doctors in private practice are ready and eager to support medical societies through which they can discharge their civic duties Not all doctors are fitted to practice civic medicine, and take the lead in medical societies and other

public health organizations But while a few can always be found to do the work of leadership, the rest can pay the dues by which the work is supported, and can keep themselves informed concerning the work of their medical societies

When departments of health and lay organizations deal with individual doctors, they are sometimes inclined to rate the medical profession low in its interest in public health If they would deal with the representatives of the medical societies, they would find the medical profession active in the support of all phases of public health work

COOPERATION WITH LAY ORGANIZATIONS

The Health Conference held in New York City, November 19th and 20th, under the auspices of the United States Public Health Service, the New York State Department of Health, the New York City Department of Health, the Milbank Memorial Fund, the State Charities Aid Association and the New York Tuberculosis Association was largely attended both by professional and lay persons The conference showed plainly that the adoption of the measures and methods approved by experts in preventive medicine and public health administration raises the standard of health and reduces the amount of sickness in the state It was noticeable that no medical organization cooperated with the six health bodies Why this was so should arouse the interest of physicians Did they as an organization decline, or were they not given the chance?

Since health organizations must always look to physicians for knowledge and guidance as to the nature of disease and the proper method of overcoming it, and also for the methods of promoting public health, it would seem eminently fitting that the great organization of the New York State Medical Society with its more than ten thousand members should have been a cooperating member in a health conference projected on so splendid a scale.

Organized medicine in New York State accepts the duty and responsibility of supplying

methods and guidance in the promotion of public health, and would be glad to join officially with other health organizations in bringing this knowledge to the general public

The new activity in the State Medical Society, that of Graduate Medical Education—has for its direct object the post graduate education of every physician, and the promotion of public health The success of this campaign will go far to solve the public health problem It is admittedly the best prospect today for service to the practitioners of medicine, and also to the general public

All welfare and health organizations are of great value in making effective the distribution of real medical knowledge and discoveries and the application of methods to solve the health problems There is work enough and room enough and glory enough for all

The State Medical Society welcomes any opportunity to make its knowledge of disease and prevention effective just as soon as the new discoveries and new methods are proven true and correct, and useful in educating the public as to how it may obtain its benefits It is proper to arouse public interest and create enthusiasm in any reasonable way until attention is fixed, but after the real knowledge of disease is ascertained, the method of prevention and the promotion of public health must follow scientific and accepted lines As Dr

FIELDS OF MEDICAL WORK

Physicians are not the only persons who are engaged in health work. The practice of medicine in its broadest sense is in the hands of three groups of persons: 1, the medical profession, 2, departments of health, and 3, unofficial organizations of laymen. The fields of these three groups overlap, and misunderstandings between them often occur. If each group keeps clearly in mind its own proper field of activity, harmony and cooperation will be assured.

There are three general divisions of the practice of medicine: 1, the curative, 2, the preventive, and 3, the promotive or the promotion of health and vigor.

The divisions of practice covered by each of the three groups of health workers is shown in the accompanying table.

The practice of curative medicine—that is, the treatment of sick people—belongs exclusively to physicians. Boards of health enter the field to some extent with the consent and solicitation of doctors, but lay organizations have practically no place in curative medicine, except indirectly in such activities as the management of the business side of hospitals, public health nursing associations, and similar organizations. If this principle is kept in mind by the nurses and social workers and even the doctors employed by lay organizations, the greatest source of friction and misunderstanding will be removed.

The practice of preventive medicine is the peculiar function of departments of health. The prevention of diseases is principally a community problem, and therefore it is properly done by public officials.

A physician in private practice also has a duty in preventive medicine—that of protecting the individuals of the families in which he is the family doctor. Many physicians consider that their duty ends here. If the

family medical advisor treats the sick and takes active measures to protect the well members of his families, he does a great public health work, but in order to do this, it is necessary that he cooperate heartily with departments of health and, also to a considerable extent, with lay organizations.

However, a large proportion of the people—probably one-third—are unable to avail themselves of all necessary preventive measures because of financial, educational, or other reasons. Even departments of health are unable to reach some people. To assist and educate these people in utilizing the benefits of preventive medicine is the peculiar field of lay organizations, such as charitable societies, tuberculosis associations, and visiting nurse organizations. Hospitals, housing, poverty, and crime all have an extensive influence on health, and the management of these conditions belongs to lay organizations, and to officials of other divisions of government besides the health department. This work consists largely in educating the people and in demonstrating the methods and values of the newer lines of activity, with the expectation that departments of health and other governmental agencies will assume the work.

The health work of lay organizations consists in a great deal more than passively guarding against threatened epidemics; to a much greater degree it consists in actively promoting such a degree of health and strength that people not merely escape the hades of sickness, but that they also attain a heaven of vigor and efficiency. This is the object of the great movement to promote the practice of periodic health examinations by physicians in private practice.

Physicians generally realize their civic duty to engage in the practice of preventive and promotive medicine, as well as the curative

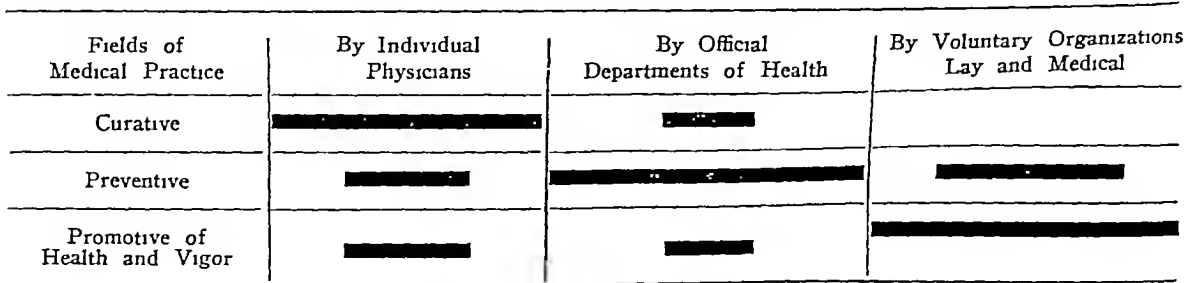


DIAGRAM OF HEALTH ACTIVITIES

The lengths of the bars represent the relative proportion of effort put forth by the three great groups of health workers in the three great fields of health work.



MEDICAL PROGRESS



Treatment of Paresis by Malaria Inoculations—Schulze, head of the Dalldorf Insane Asylum, Berlin, reports his experience with the Wagner-Jauregg method of malaria inoculation in the treatment of general paralysis of the insane. Writing in the *Deutscher medizinische Wochenschrift* for November 6, 1925, he states that he began the use of the malaria virus in 1922, following the favorable reports from Wagner-Jauregg of Vienna. He has now inoculated 450 paretics with malaria. Unlike his predecessors in this field, he has refrained from making use of salvarsan or any specific drug in the after-care, believing it wisest to try out the malaria treatment alone. The number of cases available for statistics was 215 and the results were classed in four groups. Group I comprised only arrests or recoveries, and here belonged 78 patients. Some of the remissions would doubtless have come about without the treatment, but the interval of quiescence averaged much longer than in spontaneous remissions. Group II comprised improvements and numbered 29, so that the total positive results came to 107 or almost exactly half. Group III comprised all living who did not benefit by the treatment, most of the patients showing the usual progress of the disease. The number under this head was 65. The fourth group was made up entirely of patients who had succumbed to the disease since beginning the treatment. In none of these fatal cases, however, did the malaria inoculation appear to have caused the death. According to the conditions of the treatment it is allowable to give the patient quinine as usual. Inoculation was performed with a strain of tertian malaria injected under the skin or intravenously. Concerning the nature of this cure nothing is known. We only know that in the brain of a dead parietic who has received the treatment the iron reaction is less marked than in an untreated case.

The figures of some of the other observers are equally favorable. Gerstmann, collecting the records of Jauregg's own clinic, reports 112 patients who had a resumption of working power with complete remission of the psychic symptoms out of a total of 294 cases in which the data were complete. Of the remainder 90 were able to work, but were not fully restored mentally. The reports from English observers, while on the whole rather encouraging, are much less convincing. In four series of cases published in *English journals* in 1923 and 1924, there were reports of 75 cases, in 13 of which marked improvement, one might almost say cure, was noted, while some benefit was apparent in 21, in the remaining 41 little or no change

occurred. In most of the reports, from both Austro-German and other sources, mention is made of an occasional death from the induced tertian fever. The behavior of the serum reactions in the cases of remission of the clinical symptoms was not uniform. In some the Wassermann and other reactions remained unaltered, in others the blood Wassermann disappeared early, but the cerebrospinal Wassermann persisted for several years, and in some cases indefinitely. The cerebrospinal lymphocytosis sometimes persisted after the blood Wassermann had definitely disappeared.

The Cause of Convulsions in Whooping-Cough—Most writers of pediatric text-books attribute the nervous complications of whooping-cough to asphyxia, central edema or congestion, brain injury from hemorrhage, encephalitis or meningitis. Chapin, for example, attributes them to cerebral congestion or capillary intracerebral hemorrhage. But the outstanding symptom of all these conditions is convulsions, and the rarity with which definite pathological lesions are found post mortem is in striking contrast to the frequency with which convulsions occur. As a matter of fact, says Grover F. Powers, in an article in the *American Journal of Diseases of Children*, November, 1925, xxx, 11, it is quite probable that the existence of convulsions in whooping-cough has frequently been the principal basis upon which a diagnosis of cerebral hemorrhage, encephalitis or other lesion has been set up. The finding of electrical hyperirritability of the nerves and a reduced calcium concentration of the blood serum in several infants with whooping-cough and convulsions leads the author to suggest that infantile tetany, and not anatomical injuries or an unknown toxin, is often the cause of convulsions in whooping-cough. The wide recognition of this fact is important because the convulsions of pertussis, in which death not infrequently occurs, may be amenable to treatment when the patient has tetany. A fact that lends support to the view that tetany is a cause of convulsions in pertussis is that this complication is most frequently observed in rachitic infants. This was true of all the cases studied by Powers. It would thus seem that it is important that the calcium concentration of the blood and the electrical reactions of all infants with whooping-cough should be determined, if possible, and therapeutics may then be guided by the evidence for or against the existence of latent tetany. In the event that this determination cannot be made, the writer suggests that calcium chloride should always be administered to young children who have whooping-cough.

Welch says "Mere repetitions of claims, mere reiteration that certain diseases can be prevented, is not sufficient. To bring a knowledge of preventive medicine to the public is one of the duties and responsibilities of organized medicine. Better team work on the part of medical societies and health agencies in presenting the great discoveries in medical science and making their distribution more effective would promote public health and preventive medicine."

When Dr. Welch said that we know how to do a lot of things which we don't do or do on a wretchedly small scale, and that most of the great discoveries in preventive medicine were not fully applied, he stated a fact. In all true advance in health promotion conservatism is necessary in the interest of truth and also in gaining the confidence and cooperation of the public in their adoption of methods that to

them are revolutionary. It is necessary to go slow enough to educate as we go.

There is no group of men who can be of as much use in preventive methods as practitioners of medicine in their daily work as medical men. No other group can so effectively distribute medical facts. Organized medicine will take a prominent part in the distribution machinery. Physicians should be welcomed as co-workers and councillors by every health organization.

There was a resolution adopted by the New York State Committee on Tuberculosis and Public Health of the State Charities Aid Association, inviting the President of the State Medical Society to become a member of the Executive Committee. This is evidence of the desire of a lay body to cooperate with organized medicine.

LOOKING BACKWARD A QUARTER CENTURY AGO

Twenty-five years ago the *NEW YORK STATE JOURNAL OF MEDICINE* first appeared as the organ of the New York State Medical Association. The first article begins:

"With the present issue the New York State Medical Association begins the monthly publication of a Journal which will take the place of its annual volume of Transactions. The example should be followed by every State Medical Association in this country. Every member of a live organization, whether lay or medical, should be in close touch with the aims and purposes of that body. He should feel himself a vital part of it, should work for its interests, should raise his voice when occasion demands for all that is best and progressive. The members of the New York State Medical Association now have this opportunity placed before them."

"From month to month will appear the scientific papers presented at the Annual Meetings of the Association. The department of Association Notes will contain news items, letters and correspondence, notices of removals and deaths, and an occasional short sermon, perhaps, on the needs of the Association or of the profession at large throughout the State."

The new publication was in charge of a committee on publication consisting of James Hawley Burtenshaw, Wisner R. Townsend, Stephen Smith, J. W. S. Gouley and Frederick Holme Wiggan, all of New York City.

The first issue contained thirteen pages, of which six were devoted to news and six to scientific articles, and only three to advertisements. Still it contained the main features of the Journal as it now exists.

TWENTY YEARS AGO

The first article of the *NEW YORK STATE JOURNAL OF MEDICINE* of January, 1906, begins as follows:

"At a special term of the Supreme Court, held at Rochester, December 9, 1905, Judge J. M. Davey signed the order consolidating the Medical Society of the State of New York and The New York State Medical Association, according to the terms of the Agreement prepared by the Joint Committee of Conference, and approved by both organizations at their annual meetings in 1905."

"The New York State Journal of Medicine

will be continued as the official organ of the Society. Every endeavor will be made to make it attractive, interesting and worthy of the profession of the Empire State. It will publish the Transactions of the State Society, news items of interest, book reviews, and valuable original articles. Its aim will be to promote the best interests of the profession, to advance the science of medicine, to elevate the standard of medical advertising, and to assist in every way in upholding the honor and dignity of the Medical Society of the State of New York."

nucleate cells should not be over 4 to 6% —
Muenchener med Wochenschrift, Oct 9, 1925

Diagnostic Significance of Phenol in the Blood.—Becher, Litzner and Täglich make a short preliminary contribution on this subject. We know that combined phenol exists in normal blood, and that it may be greatly increased during certain diseases, while at the same time free phenol begins to appear, and its presence may be recognized by Millon's reaction. Hitherto we had known that phenol is largely increased in uremia but since it only runs parallel with the urea, retention a positive find adds nothing to our ordinary diagnostic resources. In other diseases it is likely to be different, and among others the authors have found a notable increase of combined phenol with the presence of free phenol in the blood of pernicious anemia. In addition to the possible aid in differential diagnosis, these finds appear to support the enterogenic theory of the causation of this affection. Unfortunately the recognition of phenol cannot be brought into the compass of micro-methods, for at least 100 cc of blood are requisite for the Millon test —
Münchener med Wochenschrift, Oct 2, 1925

The Value of Venesection in the Treatment of the Decompensated Heart—To the student of the history of medicine there is no more striking example of the see-saw of therapeutic practice than that illustrated by the fall from favor of venesection. At the beginning of the 19th century it was the panacea for all the ills of mankind, and when the practitioner did not know what else to do he bled the patient copiously and frequently. At the beginning of the 20th century the man whose patient died after a venesection would probably have faced a suit for malpractice. Nowadays blood-letting is regaining favor, but even yet the one who resorts to it often feels that he is called upon to justify his action. There can be no question, however, that in certain conditions, such as local congestion of some vital organ, heart disease with broken compensation and some toxemic states, the drawing of blood may avert an immediate fatality.

Burgess Gordon in an article in the *American Journal of Medical Sciences* for November, 1925 reports a number of cases in which venesection effected a marked change for the better in the decompensated cardiac patient. The roentgenographic examination of a series of dilated hearts in patients with failing circulation showed a diminution in the size of the organ immediately after venesection. When this occurred, there was a corresponding improvement in the condition of the patient, the myocardium regaining its strength in a measure, with the result that all the organs were more equally and more fully supplied with blood and so better enabled to perform their functions in an approximately normal manner.

A survey of the hospital records showed that numerous patients, bled as an emergency measure after other therapeutic measures, such as drugs, had failed, possibly because of their delayed action, responded favorably to venesection. This experience offers further proof that venesection has a place in improving the action of the decompensated heart and, temporarily at least, in removing the signs and symptoms of cardiac failure.

Total Gastrectomy for Linitis Plastica—Mont B. Reid reports in *Surgery, Gynecology and Obstetrics*, November, 1925, xli, 5, a case of successful total gastrectomy in a woman 51 years of age, which is interesting on account of its rarity. The case was one of linitis plastica in which the stomach was so nearly reduced to a small hard fibrous tube that it was evidently impossible to give relief either by gastroenterostomy or partial resection of the stomach. The entire stomach was removed with little difficulty, but restoration of the continuity of the alimentary tract was quite difficult because of the depth of the wound and the absence of serous covering on the posterior wall of the esophagus. Continuity was restored, however, by end-to-end anastomosis between the distal end of the divided jejunum and the esophagus. Both the esophagojejunal and the jejunojejunal anastomoses were made with the interrupted Halsted mattress sutures of silk. The blind end of the duodenum was inverted by similar sutures. The writer points out that there have been reported in the literature only about 50 cases in which complete gastrectomy has been attempted. Patterson found that 17 per cent of those who recovered from the operation of total gastrectomy were alive and well five years later. The operative mortality was found by Frazier to be 33 per cent. These statistics make the operation of gastrectomy feasible and indicated in properly selected cases.

Management of Head Injuries—Writing in the *Lancet*, of November 7, 1925, ccix, 5332, Wilfred Trotter calls attention to the frequency and importance of minor injuries to the brain which are so often overlooked or ignored after the gross external head lesions have healed. The more severe injuries have long attracted the attention of the surgeon and the indications for operation are fairly well defined. But the nonoperative and, so to say, physiological methods of treatment are of great value and deserving of more attention than they usually receive. Surgical treatment, Trotter says, should be advised when at the end of the first week serious mental changes (profound drowsiness and inertia, delirium or mania) are present and seem to be about stationary. In a few severe cases operation may be called for at an earlier date, but generally the choice of time is not a matter of

complicated by convulsions. As a further precaution, in order to insure the assimilation of the calcium, the simultaneous exhibition of parathyroid extract may be suggested. There is usually calcium enough in the food, but the difficulty in rickets is its nonabsorption.

Treatment of Furunculosis — Busche and Langer of the Rudolf Virchow Hospital, Berlin, consider this subject exhaustively, as to both the underlying condition and individual lesions. The number of local and internal remedies suggested from time to time is a confirmation of the fact that there is no typical management. Not only most of the antiseptics, but every form of vehicle, minor surgical procedure, and physical remedy seems to have had advocates. The authors are apparently testing vaccines and various forms of non-specific protein injections, but they are partial to sulphur in various forms as baths, local applications, injections, by the mouth, etc. In this connection they mention Bier's advocacy of low potencies of sulphur as used by homeopaths. The authors believe this is going too far, for we have no scientific theory to support it. At the same time they suggest that mild remedies should have a fair chance, and that the drastic intravenous and intramuscular injections are justly unpopular with patients. If we wish to use medicines in attenuated doses they suggest the use of thallium, for which there is a scientific justification. Quite a number of metals are known to exert an oligodynamic action on living matter and the smallest ionized quantity of thallium is found to possess antibacterial properties. Insulin also is believed to possess some power even over non-diabetic furunculosis — *Medizinische Klinik*, November 6, 1925.

Caramelized (Anhydrous) Sugars in Diabetes — According to Nonnenbach the discovery in 1914 that caramel can replace glucose in ordinary diets, and in diabetics can be utilized without increasing the hyperglycemia is hardly less important than that of insulin. Following this idea, the water was split off from the molecule of other edible sugars and a new series of products, which like caramel could be utilized as carbohydrate in diabetic diets, was obtained. This series has received the name of glucosans, and among the members levo-glucosan was first found to be well tolerated and to cut the acidosis of diabetes in half. The next to be tested with positive results was alpha-glucosan, and third in order tetro-glucosan. The author announces that he has succeeded by splitting off from ordinary saccharose a certain amount of its intramolecular water, in obtaining a glucosan which he has named saccharosan, and which is apparently the same as mellitose, although this term has already been applied to a trisaccharide. He has tested saccharosan on normal and dia-

betic subjects, and finds that in the former it can be substituted for glucose while by the latter it is very well tolerated — *Muenchener medizinische Wochenschrift*, October 23, 1925.

Roentgen Studies of the Gall-Bladder (Contrast Filling Method) — Eisler and Nyiri have been studying the Graham and Cole American method of roentgenography on 75 patients. In all but five the sodium-thalein salt was given by the mouth. The general impression was of course favorable and the plates shown illustrate very clearly the differences in the shadows of normal and diseased gall-bladders. In summing up, however, the authors are extremely conservative. They cite the case of contrast filling of the stomach and intestine which is a more simple procedure, yet some years were required to develop a suitable routine technique. It will be the same, they think, with the Graham-Cole method. First of all we must solve the technical problems. Secondly, we must obtain the correct idea of a normal gall-bladder. But once this mastery has been obtained, they concede that great things may be expected, especially in the comparatively uncultivated field of the functional behavior of the organ — *Wiener klinische Wochenschrift*, Oct. 15, 1925.

Schilling's Hemograms in the Diagnosis of Abdominal Disease — John refers to a little monograph which appeared in 1924 in which the subject of diagnosis and prognosis by blood counts is intensively treated. In the diagnosis of acute abdominal disease we sometimes encounter silent cases, in which the symptoms may be limited to vague pain and soreness. In other words there are no signs in reference to temperature and pulse, no nausea or vomiting, no signs of obstruction. The ordinary white cell count is non-committal. In such cases the differential blood count, when properly interpreted, will sometimes indicate that a serious condition is present. Again there may have been symptoms — symptoms which harmonize well with the differential counts — but they have receded and the patient appears to have nearly recovered without treatment. A further blood count however shows that this supposed improvement is treacherous, and that the original condition is still present. This is well illustrated by a case in which the author makes use of Schilling's terminology. A man of 56, in excellent health, was seized one forenoon with colicky pains, but without other evidence of disease. The count showed segmented-nucleate cells, 62%, red-nucleates, 24%, eosinophiles, 0%, mononuclears, 1% and lymphocytes, 13% — a picture very suggestive of appendicitis. Overnight the patient showed improvement, but as the blood count showed no change for the better, it was thought best to operate. The appendix was of the thickness of the thumb, red, with fibrinous deposit. The normal count of red-

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Counsel, Medical Society of the State of New York

THE GOVERNMENT OF A PROFESSION

IV

In a profession so highly individualistic as medicine, initiative, originality, and the opportunity of personal accomplishment and ambition are essential factors for progress. These activating forces are the main springs to discovery and improved practice. There is no profession so ready to discard the old and take on the new as the medical profession—despite the popular belief to the contrary. But the new must first stand the test of truth applied by the profession through its scientific organizations before it receives professional acceptance. How short-lived is a medical or surgical fallacy because of the application of these principles! How acutely sensitive is the profession to the exploitation of new ideas to the lay public before they have been examined and adjudged sound! Why should this be? Because the lay public have too often been misled and victimized by the pseudo-scientists whose claims are such alloy of truth with the baser elements of fraud and empiricism that only the tests of scientific minds and experience can expose them. The rule which requires, before public exploitation of medical discoveries, a careful and searching test by the profession of the claims has doubtless saved the public many dollars and numerous lives.

But what redress has the profession against the man who today, within the law, defies this custom and masquerades before the public as its great benefactor for his own gain, who eschews professional standing with his brethren for the spotlight of the public's approval, who charges those who question his claims with motives of unworthy jealousy or conservatism? Such a man cares little for the severest judgment any censors can give—of professional excommunication, he makes capital of that and twists the motives prompting it to serve his own ends and prove his claim of professional jealousy.

The profession needs to be given more power to enforce its standards of honor and decency. The profession has always established high principles of conduct, but has failed to provide adequate machinery for the enforcement of those principles upon those unwilling to abide by them. A lay body is quite unable to cope with this problem, as it is one that peculiarly requires the background, the psychology, the standing and the experience of medical men.

For these reasons, among others, the proposed bill of the Medical Society of the State of New York seeks to establish a properly constituted and legally equipped committee that may consider all such grievances and apply adequate remedies.

CLAIMED DEATH AS RESULT OF TONSILLECTOMY

In this action the defendant, a specialist in nose and throat work, was charged with negligence in the performance of a tonsillectomy resulting in the formation of an abscess on the cervical glands and the subsequent death of the patient. The complaint charged that the defendant, as such specialist, on May 2nd was engaged to examine and remove the tonsils of a girl of about sixteen years of age, that the operation was performed at his office on May 12th but that the defendant negligently and carelessly conducted himself in the performance of the operation and in the after-care, that at the time of the operation there was active suppuration in and about the tonsils and the defendant was negligent and careless in performing the operation in the presence of such active suppuration, that there was also pus about the tonsils at the time of the operation, and because of this condition the defendant was careless in

using a local anaesthesia. It was charged that the defendant was further negligent in permitting and instructing that the patient be taken from his office to her home on the day of the operation, that on May 16th he was charged with refusing to call at the home of the patient to attend and treat her, but advised that she be brought to his office, that when brought to his office he found a severe swelling on the left side of her neck and her teeth almost locked due to such swelling and stiffness, that at that time the defendant should have been apprised of the fact that the condition of the patient was serious, requiring prompt attention and care, and that he was negligent in not prescribing the necessary prompt care and treatment. He was also charged with negligence on the 17th and 18th of May in failing to call at the home of the patient, and again on the 19th until the evening, at which time it was claimed that the patient was

great urgency, though once it is decided that intervention is necessary there is no object in delay. In mild contusion-lacerations, left by accidents which at the time seem to have produced no serious effect, the cardinal feature is headache, though there may be less conspicuous elements such as giddiness, slight changes of disposition, and minor mental and physical disabilities. The writer calls this condition "contusion headache." It usually declares itself within a few weeks of the accident and the symptoms are of all grades of severity. The most notable features of the headache are its throbbing and paroxysmal character. Its pathological basis is a bruising of the brain with resultant swelling and pressure. In the treatment of this condition rest in bed is essential. In cases of cerebral contusion, as in other conditions accompanied by intracranial congestion or edema of the brain, there is a certain accumulation of cerebrospinal fluid which tends to contribute to the disturbance of the intracranial tension. This excess may be reduced by lumbar punctures or by the administration of hypertonic saline solution. Lumbar puncture has its chief value as an emergency measure in severe attacks, while hypertonic saline solutions of magnesium sulphate, administered by preference in the form of an enema of 3 ounces of the salt to 6 fluid ounces of normal saline, daily or even twice daily, is said to be capable of producing obvious relief of these milder intracranial pressure symptoms. Manifestly, however, neither of these measures can be carried on indefinitely. A method of exercising a steadily favorable effect on the intracranial tension is a simple one of posture, and this the author has found of surprising value in the relief of headache due to this cause. Rest in bed and rigid enforcement of the propped up position in order to favor the venous outflow from the skull are indispensable for prolonged treatment. In the author's experience they have effected an astonishing diminution in the frequency and severity of attacks of contusion headache.

Clockwork Control of the Carrel-Dakin Treatment—Finding it impossible to obtain a satisfactory method of intermittent irrigation with a siphon automatically discharged by slow dropping of the fluid, Charles W. Cathcart (*British Medical Journal*, November 21, 1925, II, 3386) has invented a device by which the fluid can be discharged from a siphon, at intervals, by clockwork. The clockwork and electric mechanism are arranged to hold the valve open for twenty seconds each hour. During this time the valve can be adapted to deliver either 1 oz., 1½ oz. or 2 oz., according to amount of exit which is given to obtain 1/2 to 1 of exit. The largest size of aperture which the sac has at exit. There are smaller apertures which can be adapted to the valve by means of an appropriate nozzle. The clock, by its contrivance, can actuate, is often as is

any required number of electromagnets for a given number of seconds. This apparatus was tested in a severe case of compound fracture of the tibia, infected with *Bacillus pyocyaneus*, at the Royal Infirmary, Edinburgh, and found to irrigate the wound satisfactorily. The appliance should serve a useful purpose both as a labor-saving device and as a method of securing accuracy in the amount and regularity of the irrigations.

The Autonomic Nervous System in Sleep—Heilig and Hoff have made certain experiments in the clinics of Donath and Wagner-Jauregg in Vienna with the following results. It is known that in the waking subject a subcutaneous injection of adrenalin 1 mg. will cause a definite rise of blood pressure, but it was found that in the sleeping subject this rise does not take place. The various tests were made both in natural sleep and in paraldehyde or luminal sleep. An other test had reference to the content of calcium in the blood and it was learned that in sleep this is increased. Under provocative ingestion of 100 gms. glucose it was found that there is more blood sugar excreted in the urine of the sleeper than of the waking subject. The cerebrospinal fluid of the sleeper also contains more sugar and albumin and less chlorides than does the same fluid in the watcher. When the blood of the sleeper is perfused through the frog's heart the same difference is found in comparison with the watcher's blood. The significance of these finds is regarded as follows: the vascular tonus of the sleeper is diminished so that the walls of the vessels relax and their caliber is increased, as a result of which the blood stream becomes slower and the blood pressure falls. The mechanism is believed to concern primarily the autonomic nervous system which is thus modified during sleep.—*Klinsche Wochenschrift*, November 12, 1925.

Testicular Opothrapy in the Physical and Psychical Disorders of Celibate Women.—Humbert, in the article herewith noted (*Le Bulletin Médical*, October 24, 1925), refers chiefly to comparatively young women—around the age of thirty—who show nutritive and psychopathic disturbances and who have been anxious to marry. Some of them frankly believe that their maladies are due to celibate existence. In addition to indigestion and malnutrition they display causeless attacks of weeping, great irritability, psychasthenic manifestations such as phobias and fixed ideas, suicidal obsessions, prostration, fatigability, etc. If these patients do not improve under tonics and ovarian substance—which they usually require—the author places them on total testicular extract, given internally and never by injection or grafts. The benefit is said to be decided, though the results cannot be regarded as brilliant, judging by the case reports.



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IV

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unable to swallow or open her mouth, that on May 20th it was necessary, because of the defendant's claimed negligence, to call in a surgeon, who operated upon the patient and that though they gave him notice, it was charged that he negligently failed to attend at such operation, that on May 25th, because of the defendant's alleged negligence, it was necessary to call another surgeon to operate upon the patient, at which time it was claimed that it was found that an abscess had formed which extended from the base of the skull downward to the upper part of the chest and backward beneath the muscles of the neck, and that the tissues of the neck were sloughing and the great vessels, including the jugular vein, were bathed in pus as far down as the chest, that on June 2nd, as a direct result of defendant's negligence, the patient died, and because of these facts damages were sought to be recovered against the defendant for the alleged causing of the death of the patient.

The defendant was a man of wide experience, specializing in nose and throat work. On May 4th the patient, accompanied by her adult sister, called on him at his office. He was given a history that the patient had had repeated attacks of tonsilitis for a period of years, the last attack having been four months prior. An examination at this time disclosed submerged tonsils, no acute inflammation and there was no pus present. He advised the removal of the tonsils, giving the people the choice of the performance of this operation either at his office, which was properly equipped for the same, at their home, or at a hospital. They selected that the operation be done at the physician's office and arrangements were made for the performance of the same on May 12th. On this date, the patient, accompanied by her sister, came to the defendant's office, where the necessary preparations were made by the defendant's assistant physician and his nurse. A local anaesthesia was administered by the assistant physician and the operation performed by the defendant without complications. There was very little bleeding, the tonsils being completely enucleated. After the operation the patient was put to bed in the retiring room and a special nurse assigned to attend her. The operation was performed in the morning, the patient remaining in the rest room all day and leaving for her home in the early evening. Instructions were given that when the patient arrived home she was to be put to bed, ice bags applied to her throat, frequent use of gargles and to be put on a liquid diet, and defendant to be informed as to the progress of the patient.

The defendant heard nothing further from the patient until May 16th, when she called at his office accompanied by her sister. An examination disclosed a clean-looking throat, normal tempera-

ture, slight pain on swallowing. On the day following, May 17th, the patient was seen at her home by the defendant's assistant, who reported that he found a slight swelling on the right side of the patient's neck. On May 18th she was seen by the defendant, and there was a swelling about the size of a hen's egg on the left side of the neck, which was tender. On May 19th the patient was again seen, together with the family physician. The defendant suggested to the family the calling in of a surgeon to open up the abscess if he found the same necessary. The family physician communicated with the defendant, stating that he was ready to open the abscess himself, but that the family preferred a surgeon, and that the family had made arrangements for a surgeon to call. When the defendant was notified by telephone that this operation was to be performed, he inquired if he could be of any assistance and was advised by the family physician that there was no assistance which he, the defendant, could render. Nothing further was heard by the defendant from the patient until May 25th when, by telephone, he was told that the patient was very sick. He immediately went to the patient's home and there met an eminent surgeon who had been called in consultation. The family physician was also present and members of the family. A history of the case was furnished by the defendant to the surgeon. Examination of the neck wound by the surgeon disclosed a large mass and pus discharging through the incision which had been made by the first surgeon who had been called in. The second surgeon was of the opinion that there was insufficient drainage and advised that the incision in the neck be enlarged. He did not, however, consider that the patient was in any danger. He further advised the family that the patient be sent to a hospital where he would operate upon her the following day. When inquiry was made by the patient's sister if the operation could wait until the following day, the surgeon stated that it would not jeopardize the patient at all and that it would only delay the convalescence by a day. Nothing further was heard from the patient by the defendant until about June 3rd, when the family physician, by telephone, told the defendant the patient was in the hospital in a critical condition, and that for him not to call upon the family as they felt embittered toward him. A few days thereafter the defendant heard that the patient had died.

This action was about to be reached for trial and after a conference with the plaintiff's attorney we were able to convince him that there was no negligence or carelessness upon the part of the defendant and that the death of the patient was not in any way due or attributable to any act of his, and thereupon a discontinuance of the action was consented to.



State Department of Health



Interesting Cases Found at Prenatal Consultations

During one week recently the prenatal consultation unit of the Department examined twenty-five expectant mothers in four different communities. Seventeen of the cases were new and eight were return cases. Of the new cases twelve were registered with and referred for examination by the family physician, five had not engaged a physician. Thirteen of the women were more than five months pregnant, while in only four was the pregnancy of shorter duration. One of the pregnancies was full term and a second almost so.

The interesting point in these twenty-five pregnancies was the large number of defects discovered. Fifteen of the women were suffering with high blood pressure, the systolic pressure ranging from 128 to 168. Fifteen had abnormal pelvises, three of them being of a major type which will require some sort of operative interference. There were four cases of suspected tuberculosis, three with cardiac disturbance, one case of demonstrable syphilis and one who had a sudden increase in weight with hydramnios. From the foregoing it will be quite evident to the reader that many of the patients suffered with more than one defect.

Of the five cases who had not as yet engaged a physician, one was in the ninth month, one in the eighth, two in the seventh and one in the fifth month of pregnancy. Three of these women were suffering with increased blood pressure (138 to 148 systolic), four had slight or moderate contractures of the pelvis.

No treatment is given to patients attending these consultations, if they are already in the hands of a physician he is notified and advised regarding the findings. If a physician has not been engaged for the labor the patient is given general advice about her condition, and she is urged to place herself in the care of a doctor at once, when this is done a full report of the patient is rendered to the physician.

These consultations have been held with an increasing degree of success in many communities of the State with the hearty cooperation of the local medical profession. Physicians in localities where these consultations are to be held are urged not only to refer cases but to attend themselves and observe the routine of a thorough prenatal examination.

Hospitals and Venereal Disease Control

The governing boards of hospitals with but few exceptions are adverse to admitting cases of syphilis and gonorrhea as such, when in the highly infectious state. From the public health viewpoint, cases of syphilis in the acute stage should be removed from the community and given intensive treatment while skin or mucous membrane lesions are visible, i.e., treated "not as a sexual malady but as an infectious malady to which no shame attaches, like small-pox" (Velthuyzen).

The October edition of *The Modern Hospital* states editorially, "one specific part of the public health program in which hospitals could and should actively engage is in the control of venereal diseases. In no particular is there a greater opportunity to do educational work, and certainly in the treatment of the venereal infections much may be accomplished if the work is thoroughly done."

The United States Public Health Service in commenting upon this editorial in its *Health News Release* says "Hospitals can render invaluable assistance to state, city and county health departments by giving the general public information regarding this gigantic health problem. With that end in view, not only hospital superintendents and the medical staff, but nurses, social workers and others coming in contact with the sick, should be educated to the point that they assist in promoting this valuable public health work." "Here," concludes the editor, "is a piece of work and a responsibility that the hospital field should and must meet at once."

Typhoid Outbreak at State Hospital—Carrier Discovered

An outbreak of eleven cases of typhoid fever recently occurred at the Rochester State Hospital. A general investigation of food handlers at the hospital was begun, and resulted in the discovery of a carrier, a man fifty-six years of age, who served as a dining-room helper. No history of ever having had typhoid fever could be obtained from him.

Five of the cases occurred among those who ate in the dining room in which this man served. The other six cases occurred in other buildings, but as some of the food from the first dining room went back to the general kitchen, it is thought that all the cases may have been due to this carrier.



NEWS NOTES



OTSEGO COUNTY MEDICAL SOCIETY

The Annual Meeting of the Otsego County Medical Society was held in the Elks Home, Oneonta, N Y The meeting was called to order by Vice-President R W Ford, in the absence of Dr Swanson The minutes of last meeting read and approved

Members present Drs F E Bolt, Worcester, E C Winsor of Schenectady, R W Ford, Otego, F L Winsor, Laurens, J P Hoyle, Fly Creek, W R Seeber, Milford, L C Warren, Franklin, J H Lindell, Cherry Valley, A H Bissell, C W Lanning, F J Atwell, H L Cruttenden of Cooperstown, M Latcher, D H Mills, Stanton Hendricks, E J Parish, W S Cooke, J C Smith, F H Marx, L S Lang, W S Dart, N W Getman and A H Brownell of Oneonta

After the usual business of the Society had been transacted the election of officers for 1926 was held The report of the Nominating Committee was received, and on motion the Secretary was directed to cast one ballot for the name as reported

The following were elected

President, Dr R W Ford, Otego, Vice-

President, Dr Marshall Latcher, Oneonta, Secretary, Dr A H Brownell, Oneonta, Censor, Dr J W Swanson, Springfield Center, Treasurer, Dr F L Winsor, Laurens, Delegate to State Convention, Dr A H Bissell, Cooperstown, Alternate, Dr L C Warren, Franklin

Dr Atwell read the paper prepared by the retiring President Dr Swanson He gave a review of the advance of medicine since he began to practice fifty-two years ago The paper was extremely interesting On motion of the Society a vote of thanks was extended to Dr Swanson Dr E J Parish presented the subject of Hip Joint Fractures, touching on the diagnosis and modern methods of treatment

Dr Arthur W Benson of Troy gave a talk on "tonsils," the various form of diseases and treatment of the same Both topics were followed by a general discussion

Dinner was served at 7 P M in the Elks dining room

A short business session was held after the dinner for the appointing of a special committee on legislation

WAYNE COUNTY MEDICAL SOCIETY

The Annual Meeting of the Wayne County Medical Society was held at Lyons December 8th, 1925 The meeting was called to order by President Sheldon at 11 30 A M The minutes of the last meeting were read and approved

The following members were present Dr Donnelly, J C Carmer, Allen, Winchell, Brandt, Sanford, Chase, Andrew, M E Carmer, Young, Smith, Johnson, Meyers, E W Carr, Sheldon, Robertson

Visiting physicians Dr Robert G Stuck, Wolcott, Dr Herbert E Sperry and Dr Frederick J Pratt, Williamson

Reports of the Secretary and Treasurer read and accepted and the footings ordered spread on the minutes

Amount received	\$487 74
Disbursements	378 51

Balance on hand	\$109 23
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Average attendance of meetings, eighteen Two new members were taken in during the year, making thirty-five members in good standing

Following a recess for dinner at 12 o'clock, the meeting reconvened at 1 30 P M Election of Officers Motion made and seconded that L H Smith act as teller Carried

A separate motion was made, seconded, and carried that the teller cast one ballot for each of the following officers, and each officer was declared elected

President, Ralph Sheldon, Vice President, W H Sweeting, Secretary and Treasurer, D F Johnson, Censors, M E Carmer, H L Chase, A A Young, Delegate, L H Smith, Alternate, C H Bennett

Applications on membership of the following physicians were presented to be voted on at the next regular meeting

Frank G Stuck, Franklin L Meyers, Frederick J Pratt

A letter was read from the New York State Nurses Association in which recommendations were made for registering nurses Much discussion followed, and finally a motion was made and carried that the letter be laid on the table

SCIENTIFIC PROGRAM

The Veneral Peril, A A Young, Diagnosis, M E Carmer

Prognosis, H L Chase

All the papers were very interesting and brought out a liberal discussion

Meeting adjourned at 4 15 P M

MEDICAL SOCIETY OF THE COUNTY OF QUEENS

The annual meeting of the Medical Society of the County of Queens was held Tuesday, November 24th, 1925, at 8 30 P M, at Eagle Palace, Jamaica, with the President, Dr Courten, in the chair. After the minutes of the last annual meeting had been read and approved the following applicants, recommended by the Board of Censors, were elected to membership.

Drs Anthony B Debbie, Stephen Kiss, Maxwell Liberman, Harriet M White. Dr John J Salerno received on transfer from the Medical Society of the County of New York.

The amendment to the By-Laws, proposed at the preceding meeting, providing for the creation of an additional office in the society, a secretary and a treasurer, replacing the secretary-treasurer was adopted.

The Secretary-Treasurer then made his annual report, showing a membership of 299, the addition of 58 new members during the year, the loss of two members by death, one by resignation, four by removal from the county, with 14 members delinquent for the 1925 dues.

His report as treasurer showed a balance in the treasury of \$1,786 93, of which \$1,051 is deposited in the Queens County Savings Bank. An interesting item in the report concerned the publication of the Bulletin, the cost of which was \$232 67, and the receipts from advertisers \$162.

Dr Chalmers, for the Committee on new By-Laws, reported progress.

In the Scientific Session, the subject of the evening was "The New Medical Practice Act as Approved by the Council of the Medical Society of the State of New York," presented by Nathan B Van Etten, M D, President of the Medical Society of the State of New York and George W Whiteside, Esq, Counsel of the Medical Society of the State of New York.

Dr Chalmers, Dr McMahon and Dr Fleming shared in the discussion.

After a vote of thanks to the speakers of the evening, the meeting adjourned, and a collation was served. Attendance 75.

ULSTER COUNTY MEDICAL SOCIETY

The annual meeting of the Ulster County Medical Society was held at McCabe's restaurant Tuesday evening, December 1st.

The following officers were unanimously elected: President, Mary Gage Day, Vice-President, Frederick Snyder, Secretary, Frederick Voss, Treasurer, Chas B Van Gasbeek, Censors, James R Nelson, Mark O'Meara, Raymond Crispell, A A Stern, F Holcomb, Delegate, Luther Emerick, Alternate, Frank Eastman.

Dr Charles Cowing Zacharie of Marlborough and Dr Jacobson of this city were elected to membership.

It was unanimously voted to buy \$25 worth of Tuberculosis Christmas seals.

At the scientific session, Dr Ingalls made a short address in which he thanked all the members for their cooperation during his term as president, and he then turned the meeting over to Dr Snyder, the chairman of the scientific program.

Dr Snyder said some of our own members had taken the Inter-state Post Graduate Assembly tour the past summer, that they should have things well worth while to tell us, and he called on Dr M O'Meara, who gave a most interesting account of the trip from Montreal down the St Lawrence River, across the ocean and all the cities visited, Dublin, Glasgow and Paris. He spoke of the social features, but dwelt principally

upon the surgical clinics and hospitals visited. He considered the trip of the utmost importance.

Dr Norwood was the next speaker and while he was on the same trip the party was so large, over eight hundred, that they went over on different ships and the lectures on shipboard were, of course, by different specialists. When they landed they were in separate groups because they could not be accommodated in the hotels and hospitals. His description of the clinics of his section was most interesting and they, too, were principally surgical.

Dr Gifford was the last speaker and he emphasized more the medical clinics, which he found most valuable. In Paris they visited the Curie Institute and Madame Curie herself met them and made their visit to the institute most interesting to everyone interested in the use of radium in malignant diseases.

A general discussion of the nursing situation followed and Dr Chandler reported that the State Committee, of which he was a member had held one meeting in New York and were to hold another in Albany soon.

A framed copy of the certificate that the society is a member of the New York Board of Governors of the Gorgas Memorial Institute was handed Dr Day to serve as an inspiration during her term of office and to be passed to her successor. Refreshments were served.



LEGISLATION



MEMBERS OF THE LEGISLATURE, 1926

SENATE

District

- 1 George L. Thompson, R., Kings Park.
- 2 John L. Karle, R., Ridgewood
- 3 Peter J. McGarry, D., Blissville
- 4 Philip M. Kleinfeld, D., 1338 52nd, Brooklyn
- 5 Daniel F. Farrell, D., 378 17th, Brooklyn
- 6 James A. Higgins, D., 44 Court, Brooklyn
- 7 John A. Hastings, D., 142a Kosciusko, Brooklyn.
- 8 William L. Love, D., 857 Lincoln Place, Brooklyn
- 9 *
- 10 Jeremiah F. Twomey, D., 911 Manhattan Avenue, Brooklyn.
- 11 Daniel J. Carroll, D., 135 N 3rd, Brooklyn
- 12 *
- 13 Thomas F. Burchill, D., 347 W 21st, N Y C
- 14 Bernard Downing, D., 195 Monroe, N Y C.
- 15 Nathan Straus, Jr D., 119 Fifth Ave., N Y C
- 16 Thomas I. Sheridan, D., 245 E. 19th N Y C
- 17 Courtlandt Nicoll, R., 149 Broadway, N Y C
- 18 Martin J. Kennedy, D., 85th St., and 3rd Ave., New York City
- 19 Duncan T. O'Brien, D., 188 St. Nicholas Avenue, New York City
- 20 Michael E. Reiburn, D., 1440 Broadway, N Y C
- 21 Henry G. Schackno, D., 100 Broadway, N Y C.
- 22 Benjamin Antin, D., 50 E 42d, N Y C
- 23 John J. Dunnigan, D., 2382 Grand Concourse, N Y C
- 24 Thomas J. Walsh, D., St. George, S I

STATE

District

- 25 Walter W. Westall, R., White Plains
- 26 Seabury C. Mastick, R., Pleasantville.
- 27 Caleb H. Baumes, R., Newburgh
- 28 J. Griswold Webb, R., Clinton Corners
- 29 Arthur F. Bouton, R., Roxbury
- 30 William T. Byrne, D., Albany
- 31 John F. Williams, R., Troy
- 32 Thomas C. Brown, R., Schenectady
- 33 Mortimer Y. Ferris, R., Ticonderoga.
- 34 Warren T. Thayer, R., Chateaugay
- 35 Jeremiah Keck, R., Johnstown
- 36 Henry D. Williams, R., Utica.
- 37 Perley A. Pitcher, R., Watertown
- 38 George R. Fearon, R., Syracuse.
- 39 Willis Wendell, R., Amsterdam
- 40 B. Roger Wales, R., Binghamton
- 41 James S. Truman, R., Owego
- 42 Charles J. Hewitt, R., Locke.
- 43 Ernest E. Cole, R., Bath
- 44 John Knight, R., Arcade.
- 45 James L. Whitley, R., Rochester
- 46 Homer E. A. Dick, R., Rochester
- 47 William W. Campbell, R., Lockport
- 48 William J. Hickey, R., Buffalo
- 49 Leonard R. Lipowicz, R., Buffalo
- 50 Leonard W. H. Gibbs, R., Buffalo
- 51 Leigh G. Kirkland, R., Randolph

ASSEMBLY

ALBANY

- 1 William Snyder, D., Albany
- 2 John P. Hayes, D., Albany
- 3 Frederick B. Linen, R., Cohoes

ALLEGANY

Cassius Congdon, R., West Clarksville

BRONX

- 1 Nicholas J. Eberhard, D., 500 E 161st Street
- 2 William F. Smith, D., 314 E. 140th Street
- 3 Julius S. Berg, D., 823 Manida Street.
- 4 Herman M. Albert, D., 482 E 167th Street
- 5 Harry A. Samberg, D., 940 Simpson Street
- 6 Thomas J. McDonald, D., 876 E 224th Street
- 7 John F. Reidy, D., 636 W 183d Street.
- 8 Jos. E. Kingsley, D., 63 E. 190th Street.

BROOME

- 1 Edmund B. Jenks, R., Whitney Point.
- 2 Forman E. Whitcomb, R., Endicott

CATTARAUGUS

James W. Watson, R., New Albion.

CAYUGA

Sanford G. Lyon, R., Aurora.

CHAUTAUQUA

- 1 Adolph F. Johnson, R., Jamestown
- 2 Jos. M. McGinnies, R., Ripley

CHEMUNG

Hovey E. Copley, R., Lowman

CHENANGO

Bert Lord, R., Afton

CLINTON

Ezra Trepanier, R., Champlain

COLUMBIA

Henry M. James, R., Hudson

CORTLAND

District

Irving F. Rice, R., Cortland

DELAWARE

Ralph H. Loomis, R., Sidney

DUTCHESS

- 1 Howard N. Allen, R., Pawling
- 2 John M. Hackett, R., Poughkeepsie

ERIE

- 1 John S. N. Sprague, R., Buffalo
- 2 Henry W. Hutt, R., Buffalo
- 3 Frank X. Bernhardt, R., Buffalo
- 4 John J. Meegan, D., Buffalo
- 5 Ansley B. Borkowski, R., Buffalo
- 6 Chas. A. Freiberg, R., Buffalo
- 7 Edmund F. Cooke, R., Alden
- 8 Nelson W. Cheney, R., Eden

ESSEX

Fred L. Porter, R., Crown Point.

FRANKLIN

John E. Redwood, R., Bay Pond

FULTON-HAMILTON

Eberly Hutchinson, R., Green Lake

GENESEE

Charles P. Miller, R., South Byron

GREENE

Ellis W. Bentley, R., Windham

HERKIMER

Theodore L. Rogers, R., Little Falls

JEFFERSON

Jasper W. Cornaire, R., Cape Vincent.

KINGS

- 1 Charles F. Cline, D., 87 Warren Street,
- 2 Murray Hearn, D., 2114 Avenue K.

* Special election will be held to fill vacancy

KINGS—Continued	
District	
3	Michael J. Gillen, D., 806 Hicks Street.
4	George E. Dennen, D., 82 Clermont Avenue
5	John J. Cooney, D., 242 Sumpter Street.
6	George Blumberg, R., 691 Willoughby Avenue
7	John J. Howard, D., 453 55th Street.
8	Michael J. Redly, D., 213 Bond Street
9	Richard J. Tonry, D., 437 78th Street.
10	William C. McCreery, D., 217 Prospect Place.
11	Edward J. Coughlin, D., 241 Adelphi Street.
12	Marcellus H. Evans, D., 305 E. 4th Street
13	William Breitenbach, D., 167 Ten Eyck Street
14	Harry Landau, D., 728 Driggs Avenue
15	Edward P. Doyle, D., 639 Humboldt Street.
16	Maurice E. Bungard, 3931 Lyme Avenue, Sea Gate
17	Edward E. Fay, R., 288 Halsey Street.
18	Irwin Steingut, D., 639 Eastern Parkway
19	Jerome G. Ambro, D., 14 Suydam Street.
20	Frank A. Miller, D., 1277 Hancock Street
21	Emory F. Dyckman, R., 509 Rugby Road
22	Jacob H. Livingston, D., 67 Bulwer Place.
23	Joseph F. Ricca, R., 152 Rockaway Avenue.
LEWIS	
	Clarence L. Fisher, R., Lyons Falls.
LIVINGSTON	
	Lewis G. Stapley, R., Geneseo
MADISON	
	John W. Gates, R., Chittenango
MONROE	
1	Arthur T. Pammenter, R., Irondequoit.
2	Simon L. Adler, R., Rochester
3	Cosmo Cilano, R., Rochester
4	Frederick J. Slater, R., Charlotte Station, Rochester
5	W. Ray Austin, R., Spencerport
MONTGOMERY	
	Samuel W. McCleary, R., Amsterdam
NASSAU	
1	Edwin W. Wallace, R., Rockville Centre
2	F. Trubee Davison, R., Locust Valley
NEW YORK	
1	Peter J. Hamill, D., 34 Dominick Street
2	Frank R. Galgano, D., 130 W. 42nd Street.
3	Sylvester A. Dineen, D., 301 W. 22nd Street.
4	Samuel Mandelbaum, D., 288 E. Broadway
5	Frank A. Carlin, D., 639 Tenth Avenue
6	Morris Weinfeld, D., 264 E. E. 2nd Street.
7	John L. Buckley, D., 346 W. 71st Street.
8	Henry G. Kahan, D., 291 Broadway
9	John H. Conroy, D., 304 W. 89th Street.
10	Phelps Phelps, R., 54 W. 40th Street.
11	Samuel I. Rosenman, D., 233 Broadway
12	John A. Byrnes, D., 347 1st Avenue.
13	John P. Nugent, D., 10 St. Nicholas Terrace.
14	Frederick L. Hackenburg, D., 57 Chambers Street.
15	Samuel H. Hofstadter, R., 67 Wall Street.
16	Maurice Bloch, D., 305 E. 87th Street
17	Meyer Alterman, D., 1274 Fifth Avenue.
18	Vincent H. Auleta, D., 163 E. 116th Street.
19	Abraham Grenthal, R., 36 W. 44th Street.
20	Louis A. Cuvilier, D., 172 E. 122nd Street
21	Albert Grossman, D., 603 W. 140th Street.
22	Joseph A. Gayagan, D., 614 W. 157th Street.
23	A. Spencer Feld, D., 336 Ft. Washington Avenue
NIAGARA	
1	Mark T. Lambert, R., Lockport.
2	Frank S. Hall, R., Lewiston
ONEIDA	
1	Gordon C. Ferguson, R., Utica.
2	Russell G. Dunmore, R., New Hartford.
3	George J. Skinner, R., Camden.
ONYONDAGA	
1	Horace M. Stone, R., Marcellus
2	Willis H. Sargent, R., Syracuse.
3	Richard B. Smith, R., Syracuse.

ONTARIO	
District	
	Robert A. Catchpole, R., Geneva
ORANGE	
1	D. C. Dominick, R., Walden
2	Alexander G. Hall, R., Highland Mills
ORLEANS	
	Frank H. Lattin, R., Albion
OSWEGO	
	Victor C. Lewis, R., Fulton.
OTSEGO	
	Frank M. Smith, R., Springfield Center
PUTNAM	
	D. Mallory Stephens, R., Patterson.
QUEENS	
1	Henry M. Dietz, D., L. I. City
2	John Hammond, D., Ridgewood.
3	Alfred J. Kennedy, D., Whitestone.
4	Jere F. Ryan, D., Bayside.
5	Wm. F. Brunner, D., Rockaway Park.
6	Paul P. Gallagher, D., Ridgewood.
RENSSELAER	
1	Harry M. Brooks, R., Troy
2	Wm. D. Thomas, R., Hoosick Falls
RICHMOND	
1	Wm. S. Hart, D., Sunset Hill.
2	Wm. L. Vaughan, D., Tottenville
ROCKLAND	
	Walter S. Gedney, R., Nyack.
ST. LAWRENCE	
1	Rhoda Fox Graves, R., Gouverneur
2	Walter L. Pratt, R., Massena.
SARATOGA	
	Burton D. Esmond, R., Ballston Spa
SCHENECTADY	
1	Chas. W. Merriam, R., Schenectady
2	Wm. M. Nicoll, R., Schenectady
SCHOHARIE	
	Kenneth H. Fake, R., Cobleskill
SCHUYLER	
	Jacob W. Winters, R., Watkins
SENECA	
	Wm. H. Van Cleef, R., Seneca Falls
STEBURN	
1	Wilson Messer, R., Corning
2	Leon F. Wheatley, R., Hornell
SUFFOLK	
1	John G. Downs, R., Cutchogue.
2	John Boyle, Jr., R., Huntington.
SULLIVAN	
	J. Maxwell Knapp, R., Hurleyville.
TIOGA	
	Daniel P. Witter, R., Berkshire.
TOMPKINS	
	James R. Robinson, R., Ithaca
ULSTER	
	Millard Davis, R., Kerhonkson.
WARREN	
	Richard J. Bolton, R., Hague.
WASHINGTON	
	Herbert A. Bartholomew, R., Whitehall
WAYNE	
	Harry A. Tellier, R., North Rose
WESTCHESTER	
1	T. Channing Moore, R., Bronxville.
2	Herbert B. Shonk, R., Scarsdale.
3	Milan E. Goodrich, R., Ossining
4	Alexander H. Garnjost, R., Yonkers
5	Arthur I. Miller, D., Yonkers
WYOMING	
	Webber A. Joiner, R., Attica.
YATES	
	Edwin C. Nutt, R., Penn Yan.



LEGISLATION



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- 32 Thomas C. Brown, R, Schenectady
- 33 Mortimer Y. Ferris, R, Ticonderoga
- 34 Warren T. Thayer, R, Chateaugay
- 35 Jeremiah Keck, R, Johnstown
- 36 Henry D. Williams, R, Utica
- 37 Percy A. Pitcher, R, Watertown
- 38 George R. Fearon, R, Syracuse
- 39 Willis Wendell, R, Amsterdam
- 40 B. Roger Wales, R, Binghamton
- 41 James S. Truman, R, Owego
- 42 Charles J. Hewitt, R, Locke.
- 43 Ernest E. Cole, R, Bath
- 44 John Knight, R, Arcade
- 45 James L. Whitely, R, Rochester
- 46 Homer E. A. Dick, R, Rochester
- 47 William W. Campbell, R, Lockport.
- 48 William J. Hickey, R, Buffalo
- 49 Leonard R. Lipowicz, R, Buffalo
- 50 Leonard W. H. Gibbs, R, Buffalo
- 51 Leigh G. Kirkland, R, Randolph

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- 2 Forman E. Whitcomb, R, Endicott

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Sanford G. Lyon, R, Aurora

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- 2 Jos M. McGinnies, R, Ripley

CHEMUNG

Hovey E. Copley, R, Lowman

CHENANGO

Bert Lord, R, Afton

CLINTON

Ezra Trepanier, R, Champlain

COLUMBIA

Henry M. James, R, Hudson

CORTLAND

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Irving F. Rice, R, Cortland

DELAWARE

Ralph H. Loomis, R, Sidney

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- 2 John M. Hackett, R, Poughkeepsie

ERIE

- 1 John S. N. Sprague, R, Buffalo
- 2 Henry W. Hutt, R, Buffalo
- 3 Frank X. Bernhardt, R, Buffalo
- 4 John J. Meegan, D, Buffalo
- 5 Ansley B. Borkowski, R, Buffalo
- 6 Chas A. Freiberg, R, Buffalo
- 7 Edmund F. Cooke, R, Alden
- 8 Nelson W. Cheney, R, Eden

ESSEX

Fred L. Porter, R, Crown Point

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John E. Redwood, R, Bay Pond

FULTON-HAMILTON

Eberly Hutchinson, R, Green Lake

GENESEE

Charles P. Miller, R, South Byron

GREENE

Ellis W. Bentley, R, Windham

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JEFFERSON

Jasper W. Cornaire, R, Cape Vincent

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- 1 Charles F. Cline, D, 87 Warren Street,
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* Special election will be held to fill vacancy

of its supply will have an unfavorable effect on the vigor of the human race and its resistance to disease

The article ascribes the cause of the diminution in the number of fish to the pollution of their breeding grounds with sewage and trade wastes. Many kinds of deep sea fish breed in the shallow water of estuaries which are polluted with sewage, and both the young and the old fish require an abundance of oxygen which is removed from the water by the decomposition of sewage. Shad, for example, have difficulty in swimming through New York Harbor on account of the lack of oxygen in the sewage-laden water.

A still greater menace to young fish life is trade waste, especially that containing acids. Young water animals are extremely susceptible to changes in the chemical composition of the water in which they live. Tadpoles, for instance, will seldom survive in tap water of New York City on account of the minute quantity of chlorine that is added to the water.

One remedy suggested at the conference was that the Government should extend the work of the artificial propagation of fish, as is already done successfully with lobsters. Much study will be necessary in order to discover the exact conditions under which blue fish, oysters, and other salt water animals breed.

It would be unfortunate if physicians and health departments lost all control of the disposal of sewage and trade wastes. They had full control of the disposal in the days when environmental conditions were supposed to be the principal causes of sickness. They should regain an increasing degree of control now that the indirect effects of improper disposal are demonstrated to be seriously unhealthful.

HOW MUCH SLEEP

The newspapers have been carrying extensive accounts of an experiment conducted at George Washington University, Washington, D. C., to determine the effects of loss of sleep. Seven students and two members of the faculty stayed awake for sixty hours, during which time they worked, studied, took exercise, and in other respects followed the ordinary active routine of waking hours.

The *New York Times* of December 13th gives a summary of the results written in popular form. The subjects seem to have felt only slight inconvenience, and at the end of the experiment they slept only a little longer than they usually did, and woke up refreshed and ready for more work.

The principal interest in the article is in its conclusions. Sleep is ascribed to an auto-intoxication with the products of metabolism. On the other hand, two of the subjects had an increased metabolism due to an over-active thyroid, and these habitually slept daily about two hours less than the others. Does increased metabolism also increase the perfection of the final oxidation of waste products in the body?

The principal conclusion of the article seems to be that sleep is largely a matter of habit, and the implication is that anyone can train himself to get along with little sleep,—three or four hours daily. This is not the attitude of physicians who deal with exhaustive states and weakened conditions. Sleep is a form of rest, and Americans, young and old, need more rest and repose. Longer hours of sleep, rather than fewer, is the almost universal advice of physicians at the present time. The important question is not how long can selected volunteers go without sleep during a single test, but how much sleep does the average person need day after day in order to maintain health and vigor of both the mind and the body.

"CURES" FOR COL COOLIDGE

The *New York Times*, December 13th, carries a short statement that Dr. Albert M. Cram of Plymouth, Vermont, says that nearly every mail brings to President Coolidge suggestions of "Sure Cures" for the infirmities of Col. Coolidge, his father. Everybody knows of some one who was seriously sick and who got well, and they ascribe his recovery to some one of the numerous things which were done to him. We are reminded of a horse doctor of our boyhood days who treated all sorts of domestic animals but always prescribed something new at every visit until the farmers asked him why he did not stick to one thing until he found out whether or not it was good for anything. The successful charlatans have only one remedy, and they use it for everything, and can point to numberless "cures" because nearly every one of their patrons survives, while doctors are frequently compelled to sign death certificates.

In the days of Hippocrates it was the custom for a sick man, on his recovery, to place an inscription in the temple stating what cured him, and doubtless the King also received as many suggestions as our President. The Father of Medicine probably learned much from a study of the votive tablets in the temples, but he must have been impressed with the utter futility of most of the remedies which he saw recorded.



THE DAILY PRESS



EUGENICS

The Magazine Section of the *New York Times* on Sunday, August 30th, contains an interesting interview with Luther Burbank in which he philosophizes regarding eugenics applied to human beings along the lines of its application to the improvement of species of plants. Burbank changes plants and fruits in regard to size, color, flavor, sugar content, hardiness, immunity to disease, and other characteristics by the simple process of fertilizing a plant with pollen from another plant which has the desired characteristic. After a few generations the quality becomes fixed in a new variety of plant.

The process may be considered to be one of evolution hastened, and guided, and intensified so that in the course of a dozen generations the development is as great as that which would occur in as many centuries or milleniums under natural conditions.

The work of Luther Burbank recalls that of his great predecessor, Gregor Mendel, a priest and abbot of a Moravian monastery who was interested in his garden more than theology. In 1865 he published his experiments and observations on the cross fertilization of sweet peas, and stated the principles of heredity which are known as Mendel's laws, and which are found to apply to other plants and to lower animals.

The same laws apply equally well to man himself, not only to his physical body, but also to his mental capabilities and traits.

Dr C. B. Davenport has published his observations on one phase of heredity in man's physical characteristics in an article on "The Inheritance of Stature," published in *Genetics*, Volume 2, page 313, July 1917, and reprinted as Bulletin No. 78 of the Eugenics Record office, Cold Spring Harbor, N. Y. Dr Davenport has made hundreds of measurements of the elements of stature,—total height, sitting height, head and neck, torso, femur, fibula, and has showed how these characteristics are transmitted by parents to children in accordance with the same laws that control the inheritance of plant characteristics.

Psychiatrists and psychologists have abundantly demonstrated that the same principles of heredity apply to mental characteristics, both as to unusual ability, and its opposite, degeneracy and unsocial tendencies. Almost the only scientific application of human eugenics has been in the investigation of cases of insanity and mental defectiveness, and to a slight extent in the isolation of a few mental defectives. Some states have passed laws authorizing the sterilization of criminals, but a feeling of sentimentality has pre-

vented their application, except in rare instances. The agitation regarding contraception is a negative phase of the same idea.

A man is the product of both heredity and environment or teaching. Environment has been emphasized to the neglect of heredity. The church and the school have taught the equality of all men, and magazine articles and advertisements proclaim the quarter truth that anybody can cultivate a photographic memory and a captivating personality. Pride in good ancestry has the very real basis in the transmission of desirable qualities of body and mind, and also of morals.

The slowness of man's development from infancy to adult life,—twenty-five years at least,—prevents the effects of heredity on the human race from being vividly apparent, and it is probable that for many generations to come men of large mentality will continue to be ensnared by pretty girls without brains, and that folks will wonder at the mediocre ability and loose morals of their offspring. Education in eugenics is necessary if the race is to attain the heights of progress of which it is capable.

POLLUTION BY SEWAGE

Departments of health no longer seek the principal causes of sickness in environmental conditions, and as a result they are advising that the control of sewage, garbage, and other wastes is an engineering problem that belongs to other departments than that of health. The leaders of larger health departments have often minimized the effects of environmental conditions other than those directly affecting drinking water and milk, and have discouraged local health officers in their efforts to control environmental conditions.

While garbage and sewage may not be a direct cause of much sickness yet they do have a great effect on health indirectly. The *New York Times* of December 13th contains an article on the effect of sewage on sea fish. This subject was discussed at the Annual Dinner of the Middle Atlantic Fisheries Association on December 12th in the Hotel Astor, New York City. The speakers discussed the great reduction in the number of salt water food fish. Blue fish, they say, are only one-tenth as plentiful as formerly, and sturgeon are becoming rare. If the diminution continues, fish will become a rarity in the markets. Oysters, crabs, and lobsters are also decreasing in numbers.

The indirect effects on health are easy to trace. Fish has been a source of protein food that has been both abundant and cheap, and a diminution

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THE TREATMENT OF DIABETES MELLITUS IN CHILDREN *

By ROGER H DENNETT, B S, M D,

NEW YORK

OUT of the mass of literature upon Diabetes Mellitus since Banting's revolutionary discovery, it appears that the general practitioner has gained the impression that the present treatment of diabetes is an extremely complicated matter. On the contrary, in comparison to the intricate mazes of infant feeding which have gradually been simplified and are even approaching standardization, the treatment of diabetes is simple indeed.

It will be the object of this paper to present the matter in as simple a form as possible, so that the physician who has not had the opportunity of following the entire literature may possibly make a start in treating this common diseased condition. There are so many cases of diabetes that need the physician's care, and who cannot reach the specialist—and in my opinion there are not a few children who die in diabetic coma in whom the diagnosis has never been made.

The diabetic problem is simpler in young children than it is in adults, first because the child is always under the supervision of a mother or nurse, and he has to eat the food that is given him. He has less temptation to deviate from the diet because of this supervision. He leads a regular life with less interruptions, has his sleep at stated hours, and his food at more regular intervals. Mental strain is avoided and it is a simple matter to regulate his exercise.

Formerly the high mortality of diabetes in children was discouraging to parents and physicians alike. Now everyone takes hope for not only is there definite promise of saving life and of making the dwarfed, emaciated child into a normal, healthy individual, but in certain favorable cases there is the possibility that the pancreas will so regenerate that insulin may be discontinued.

Just as soon as possible after the insulin and dietetic treatment is instituted, it is our object to get the urine sugar-free and keep it so. Even a

small amount of sugar in the urine for a few hours a day is an added burden to the pancreas and is evidence that this organ is being damaged. Our only hope of getting rid of the hypodermic life lies in keeping the urine sugar-free. As soon as the diet is sufficient to maintain the proper growth of the child, and as soon as the urine is sugar-free and the blood-sugar near normal limits, then must the insulin be gradually reduced, always with the greatest care that the sugar does not re-appear in the urine or become increased in the blood and that the normal increase in weight and growth is continued.

When instituting treatment in a case of diabetes, put the child to bed, take the twenty-four-hour specimen of urine, get the number of grams of sugar voided in twenty-four hours and administer in twenty-four hours one quarter of the number of units of insulin as there are grams of sugar excreted. The child passing two thousand cc. of urine with 4% sugar, loses eighty grams of sugar daily. The initial daily dose of insulin would be one-quarter of this, or twenty units. This is usually too small a dose to entirely free the urine of the sugar or reduce the blood-sugar to normal, but it is a safe dose for the beginning. This rule does not apply to children with the severer grades of Acidosis, nor children in coma, which will be discussed later.

Put the child on the first diet for its age and weight in the list appended below. Compute the blood-sugar before diet or insulin are instituted. If the blood-sugar is high, the dosage of insulin may be increased with safety. If, in twenty-four hours, the sugar in the urine is not rapidly diminishing, or if in forty-eight hours the urine is not sugar-free or nearly so, increase the dosage of insulin. The patient started with twenty units may have thirty in twenty-four hours. In another forty-eight hours, if the urine is not sugar-free, still another five units of insulin may be added to the daily dosage, provided the blood-sugar has not been rapidly lowered to within normal limits. If the blood-sugar is watched carefully the insulin may be increased until the urine is sugar-free.

* Read at the Annual Meeting of the Medical Society of the State of New York at Syracuse, May 13, 1925.
* From the Pediatric Department of the New York Post Graduate Hospital and Medical School.



BOOKS RECEIVED



Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review as dictated by their merits, or in the interest of our readers.

- A COMPEND OF DISEASES OF THE SKIN** By JAY FRANK SCHAMBERG, A B, M.D. Seventh edition, revised and enlarged 16mo of 316 pages with 119 illustrations Philadelphia, P. Blakiston's Son and Company, 1925 Cloth, \$2.00 (Blakiston's Compendis)
- FUNDAMENTALS OF BIO-CHEMISTRY** In Relation to Human Physiology By T. R. PARSONS, B.Sc., M.A. Second Edition 12mo of 295 pages Baltimore, Williams and Wilkins Company, 1925 Cloth, \$3.00
- BAILEY'S TEXT-BOOK OF HISTOLOGY** Revised and rewritten by OLIVER S. STRONG, A.M., Ph.D., and ADOLPH ELWYN, A.M. Seventh Edition, profusely illustrated William Wood and Co., New York, 1925 Price \$7.00
- PITFALLS OF SURGERY** By HAROLD BURROWS, C.B.E., M.B., B.S., F.R.C.S. Second Edition. William Wood and Co., New York, 1925 Price \$4.50
- MAN HIS MAKING AND UNMAKING** By E. BOYD BARRATT, M.A., Ph.D. Thomas Seltzer, New York, 1925 Price, \$2.50
- HEXOSAMINES AND MUCOPROTEINS** By P. A. LEVENE, The Rockefeller Institute for Medical Research, New York. Longmans, Green and Co., 1925 Price, \$3.75
- WILLIAM CADOGAN (His Essay on Gout)** By JOHN RUHRAH, M.D., Professor Diseases of Children, University Maryland Paul B. Hoeber, New York, 1925 Price, \$1.50
- SUBMUCOUS ENDOCAPSULAR TONSIL ENUCLEATIONS** With discussion of the evolution of knowledge of the tonsil as a disease producing factor and various methods of enucleation Excerpts from Clinics of Charles Conrad Miller, M.D. The Oak Press, Chicago
- OTOLOGIC SURGERY** By SAMUEL J. KOPETZKY, M.D., F.A.C.S., Professor Otolaryngology, Polyclinic Medical School and Hospital, N. Y. City 102 illustrations, 4 color plates, 21 charts Paul B. Hoeber, New York, 1925 Price, \$8.00
- ARCHIVES OF CLINICAL CANCER RESEARCH** July 1925 Volume 1 No 3 Published under the auspices of the New York City Cancer Institute, Department of Public Welfare, City of New York
- THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR. Vol. XV, Statistics** Prepared under the Direction of Maj. General M. W. IRELAND, Surgeon General Government Printing Office, Washington, D. C. 1925
- A SYNOPSIS OF MEDICINE.** By HENRY LETHBRIDGE TIDY, M.A., M.D., B.Ch. (Oxon.) F.R.C.P. (Lond.) Assistant Physician St. Thomas's Hospital, Physician to the Royal Northern Hospital Fourth Edition, Revised and Enlarged William Wood and Co., New York. Price, \$6.00
- RADIOGRAPHY** A Manual of X-ray Technique, Interpretation and Therapy By CHARLES D. ENFIELD, M.D., F.A.C.P., Roentgenologist St. Anthony's Hospital and Norton Memorial Infirmary, Louisville, Ky. 194 illustrations P. Blakiston's Son & Co., Philadelphia.
- A SYSTEM OF CLINICAL MEDICINE,** dealing with Diagnosis, Prognosis and Treatment of Disease for Students and Practitioners By THOMAS DIXON SAVILL, M.D., Lond. Seventh Edition William Wood and Co., New York Price, \$9.00
- TAYLOR'S PRACTICE OF MEDICINE.** By E. P. POULTON, A.M., M.D., Oxon., F.R.C.P., Lond., Physician Guy's Hospital, with assistance of C. PUTNAM SEYMOUR, M.A., M.D., Oxon., F.R.C.P., Lond., Assistant Physician for Nervous Diseases, Guy's Hospital, H. W. BARBER, M.A., M.B., Camb., F.R.C.P., Lond., Physician charge Skin Dept., Guy's Hospital, Thirteenth Edition, 48 plates (8 colored), 93 text-figures. P. Blakiston's Son & Co., Philadelphia, 1926 Price, \$9.00
- MEDICAL HEREDITY** Distinguished Children of Physicians (United States to 1910) By WILLIAM BROWN, Ph.D., M.D., Professor Neurology, Long Island Medical College, Consultant Brooklyn State Hospital, with introduction by CHARLES B. DAVENPORT, B.S., A.M., Ph.D. Norman Remington Co., Baltimore, 1925 Price, \$4.00
- ATLAS OF DISEASES OF THE SKIN** By Prof. G. RIEHL of Vienna and Prof. LEO V. ZUMBUSCH of Munich, with diagnostic and Therapeutic Notes by JOHN B. LUDY, A.M., M.D., Col. Med. O.R.C., U.S. Army, Dermatologist, Lankenau and Methodist Hospitals, Philadelphia. Three parts Part I, Infectious Diseases of the Skin, 69 colored illustrations, Part II, Inflammatory Diseases of the Skin, 65 colored illustrations, Part III, Atrophies, New Formations Hypertrophies, 61 colored illustrations all taken from life. P. Blakiston's Son & Co., Philadelphia
- ULTRA-VIOLET RADIATION AND ACTINOTHERAPY** By ELEANOR H. RUSSELL, M.D., B.S., Dunelm and W. KERR RUSSELL, M.D., B.S., Dunelm Goyer Scholar, University Durham, 1914, late Surgeon, Special Military Surgical (Orthopedic) Hospital, Newcastle, forewords by SIR OLIVER LODGE, F.R.S., D.Sc., LL.D. and SYDNEY WALTON, C.B.E., M.A., B.Litt. William Wood & Co., New York and E. & S. Livingstone, Edinburgh Price, \$3.50
- SWANZKY'S HANDBOOK OF THE DISEASES OF THE EYE AND THEIR TREATMENT** Thirteenth Edition. Edited by LOUIS WERNER, M.B., F.R.C.S.I., Sen. Mod. University of Dublin. Surgeon to the Royal Victoria Eye and Ear Hospital Illustrated P. Blakiston's Son & Co., Philadelphia, 1925 Price, \$6.50
- HANDBOOK OF PATHOLOGY** By C. Y. WANG, M.D., Edin., B.Sc., Vict., F.R.C.P., Edin. with two hundred and eighty-two illustrations William Wood & Co., New York. Price, \$7.00

der the skin. Opinions vary as to the advisability of one large dose of insulin intravenously or repeated smaller doses subcutaneously. I prefer the latter. In a child of over five years of age, ten units of insulin may be given every four hours if the blood-sugar is high. Under that age, five units every four hours is safer at the beginning, but in grave cases in coma, the larger dose should be used if the patient fails to respond to treatment. It is one of the joys of medical practise to see these children who formerly came into the hospital to die, return to consciousness and sit up in bed and ask for food,—often within twenty-four or forty-eight hours.

Blood-sugar determinations are essential to the proper treatment of diabetes, if we would avoid sugar-shock and the dangers of insulin. It is necessary to take the blood for blood-sugar before the first dose of insulin is administered. In severe cases it is not necessary to await the laboratory report before instituting treatment, since the clinical evidence of acidosis with large amounts of sugar in the urine is sufficient. Blood-sugar is not of aid in the prognosis, but its chief help is as a guide in the treatment. The blood-sugar may be taken subsequently only as guidance is needed in the insulin and dietetic treatment.

I wish the laboratory man could use fewer decimals, particularly in their blood chemistry, for I believe decimals confuse the busy practitioner, and are difficult to remember. Some speak of the normal blood-sugar as 1 to 130 grams to the liter, others speak of 1 to 130 grams to the 100 c.c. How much easier it would be to remember that the normal blood-sugar in round numbers is 100 to 130 to the hundred liters. Then he who runs may read that the blood-sugar of 500 is five times over the normal, and the blood-sugar of 90 is getting below the normal, and the blood-sugar of 70 approaches the danger-point and may cause sugar-shock.

Acidosis, although diagnosed by acetone and diacetic acid in the urine and by acetone odor of the breath and the well-known symptomology is best measured by the carbon-dioxide (CO_2) combining power of the blood. The carbon-dioxide is normally 50 to 70. Under 40 means moderate acidosis, 25 to 30, severe acidosis, and 15 to 20 may be fatal.

Severe diabetes is best treated in a hospital, until it is under control. It is perfectly remarkable however, how the most seemingly unintelligent and helpless mothers will grasp the details of measuring food, examining urine and administering hypodermics. Mothers can readily be taught these procedures if a trained nurse cannot be put in charge. Syringes, made for insulin only,

simplify the measuring of the dosage, boiling of the needle and syringe makes asepsis safe.

Most children with frank Diabetes Mellitus require insulin. Transitory Glycosuria and Renal Diabetes are naturally not included in this group. With these exceptions the mild cases of diabetes which are so often observed in adults and which can be controlled by diet alone are seldom if ever seen in children. It is therefore expedient to begin the administration of insulin without delay if the blood-sugar is high. Children also require relatively larger doses of insulin than adults. It is not unusual to see a child under five years of age weighing around 30 pounds that requires thirty to thirty-five units a day long after the initial treatment with larger amounts has cleared up the acidosis and other grave symptoms. It is a well-known fact that the daily amount of insulin does not depend upon the size of the individual or the body weight.

Another handicap that appears to be the unhappy lot of the child is the larger amount of food relatively that is necessary on account of growth. Whereas many adults require only thirty to forty calories per Kilo body weight or fourteen to eighteen calories per pound the growing child needs twice that amount and some emaciated, dwarfed children with long standing diabetes need even three times that amount. Children have an increased liability to acidosis, in fact throughout childhood acidosis is a frequent complication of their various diseases, and even children who are otherwise well not uncommonly have recurrent attacks of vomiting, diarrhoea or fever accompanied by acidosis. This liability to acidosis adds to the difficulty in displacing the carbohydrates with the fats to so great a degree as is possible in adults. Even well children do not assimilate and utilize fats as easily as adults and it is not safe to run up the ratio of carbohydrates to fats as high as one to three as in advocated for adults by some authorities.

I wish to place especial emphasis upon the often reiterated statement that the dietetic treatment of diabetes is just as important now as it was before the days of insulin. So far as children are concerned the diet is even more necessary than formerly because when aided by insulin the outlook is so hopeful. In this paper the writer has not devoted much space to the actual diets used because most text-books and manuals go into the subject so much more thoroughly than would be possible in a paper of this scope.

The diets of Mosenthal appended seem very well suited to children, as well as being presented in a very simple and easily understandable form both for patient and physician.

As soon as the sugar has disappeared from the urine the very low initial diet should be increased, giving the second diet on the appended list, and if the urine remains sugar-free, increase the diet every few days up to a point where it is sufficient to maintain the proper growth and increase in weight.

At this stage, where the case is progressing favorably, the daily dosage of insulin may be decreased, dropping off one or two units at a time, until in the most favorable cases the insulin reaches the vanishing point and may be discontinued. So far only the most favorable cases have been described. Often there are interruptions, and occasionally one's resources are taxed more than above description would indicate. Where the outcome is not so fortunate, which really constitutes the majority of cases, the minimum dosage of insulin which will keep the urine sugar-free and the minimum diet which permits the proper growth and gain in weight, must be continued.

Divide the total daily quantity of insulin into three doses just as the food in the diet is divided into three meals. Give insulin subcutaneously, one-half hour to twenty-minutes before each of the three meals, have the breakfast early, the night meal late, and the noon meal half way between. Seven, one and seven o'clock are not bad hours.

All of the urine voided in twenty-four hours should be saved and examined for sugar. It should be divided into three lots, each of which is examined separately, the first lot being from 7 A M. to the noon meal, the second lot from noon to 7 P M., and the third lot being the night specimen. If sugar appears in any one of these specimens, say in the night specimen, a small amount of the noon insulin may be taken away from that dosage and added to the night dose. If this does not suffice to stop the output of sugar at night, it is occasionally necessary to give a small dose of insulin at 10 or 11 P M. With various manipulations of this sort small amounts of sugar occurring at a definite time each day, when the urine for the rest of the day is sugar-free, may be eliminated without increasing the twenty-four-hour dosage of insulin.

It is the ambition of most diabetic patients to lessen the number of hypodermic injections of insulin as soon as possible, since the injections, if not painful, are, to say the least, a nuisance. As soon as the eventual diet is established, and the proper dosage of insulin necessary to keep the urine sugar-free is determined, the total daily dosage of insulin may be divided into two instead of three doses and given before the morning and the night meal. A patient getting ten units three times a day may therefore have fifteen units twice a day. Subsequently the daily dosage is gradually diminished to ten units, or five units

night and morning and still later it is often possible to give one daily dose of ten units before the morning meal. In the most favorable cases from this point on, the insulin can be cut down a unit at a time until it is discontinued if the urine remains sugar-free.

So far only the milder types of diabetes have been discussed. It is to be hoped that in the future the educational value of the lay manuals and articles in lay magazines upon diabetes will so educate the public that they may early recognize the beginning symptoms of this dread disease. There is no question that the children who are seen and properly treated within one or two weeks after the onset, are the patients that have the best chance, and these are the rare cases that may progress favorably after a time without insulin. Such cases do occur, although we have not had insulin long enough to determine whether recurrence of the disease is inevitable in children. Some authorities claim that it is. I have had but one case that has continued over a considerable period without insulin after a symptomatic recovery from a severe but early recognized diabetes which had been treated with insulin.

Practically all severe cases of diabetes in children are accompanied by acidosis, and many of them are in or near coma when first seen. It is difficult to fix the time of onset of diabetes, but children are often seen in whom the onset has seemed exceedingly abrupt, children who have been judged by their parents to be entirely well until coma is imminent or present.

The treatment of Diabetic Acidosis deserves discussion by itself. The principal source of acetone bodies in the blood is the fat. Insulin not only brings about the utilization of sugar, but corrects the acidosis, since the proper utilization of starches and sugars is necessary to the complete combustion of fats. In severe acidosis the administration of carbohydrates in conjunction with insulin not only protects the patient from sugar-shock, but hastens the elimination of acetone bodies in the blood and tissues. During the first day of treatment of a severe case of Diabetic Acidosis it is necessary to give large amounts of orange juice or glucose, or both. If the patient can swallow and is not vomiting, it is just as well to give these by mouth. One to three quarts of a 5 per cent glucose solution may be given in twenty-four hours. The fluid is usually badly needed. Or a pint of orange juice may be given and is usually much more readily taken than glucose. In addition to the orange juice large amounts of water are necessary. Weak tea is useful where the caffeine is needed for stimulation. Karo Syrup, 2 ounces to the pint of water, gives approximately 5 per cent glucose solution. Patients who cannot swallow must have glucose (pure dextrose) introduced intravenously, into the abdominal cavity, into the rectum or un-

The stools contained much pus and blood, but no protozoa. A roentgenogram of the colon was suggestive of chronic ulcerative colitis, and a later one was typical of the condition (Fig 1). A culture of the urine revealed colon bacilli. A proc-

he had developed an acute obstruction for three days when the passage of fecal material was accompanied by a large amount of black fluid. No light blood or pus was seen in the stool at any time. Complete recovery had occurred in six



FIG 1 Roentgenogram of the colon, typical of chronic ulcerative colitis

toscopic examination made at a later stage showed rectal ulceration. The patient improved somewhat until a perirectal abscess developed, as the result of which she became rapidly worse, and the skin trouble returned. Because of the poor healing of the rectal disease and the general loss of strength, she was given a transfusion of 300 c.c. of blood, with immediate improvement in her general condition. The stools became less frequent and showed no blood. Proctoscopic examination two weeks later showed very definite improvement. A roentgenogram of the colon indicated slight improvement although definite changes were still visible. She gained 4 pounds during the last month at the hospital and when she left weighed 67 pounds.

Nine months later the patient returned weighing 101 pounds, having had slight diarrhea with blood-streaked stools on two occasions. A proctoscopic examination made at this time was negative, but a roentgenogram of the colon still showed definite evidence of chronic ulcerative colitis (Fig 2). A recent letter, received nine months after her second examination, stated that there had been no return of this trouble.

Case 2—A boy, aged eleven, living in Minnesota, came to the clinic November 6, 1923, complaining of diarrhea. His history was negative except that four years before, following pneumonia



FIG 2 Later roentgenogram, showing improvement

weeks. The tonsils had been removed at the age of five. In April, 1923, he had begun to complain of abdominal pain and one week later began having four or five loose movements, usually preceded by pain. The diarrhea had persisted in spite of all treatment. The mother had noticed that the stool was blood-streaked.

At examination the child appeared to be undernourished and had evidently lost weight recently. The general examination was essentially negative. The hemoglobin was 76 per cent, the erythrocytes numbered 4,650,000, and the leukocytes 7,600. Repeated examinations of the stool showed pus and erythrocytes, but no parasites or ova. Proctoscopic examination revealed the granular, glazed mucosa usually associated with chronic ulcerative colitis, extending up into the sigmoid, without contraction of the bowel. A roentgenogram of the bowel at this time was negative.

The patient entered the hospital, but, in spite of dietary measures and iodine and kaolin medication, continued to lose weight, the diarrhea remaining about the same. He complained of headache, and had several spells of vomiting when food was forced. After one month in the hospital he lost 10 pounds, and the diarrhea was about the same, if not worse. The general condition became rather alarming. In spite of the apparently good

DIABETIC DIET FOR CHILD AGED TWO YEARS TO THREE YEARS

DIET IN GRAMS					Vegetables 3% CHO	Vegetables 10% CHO	Cereal 10% CHO	Fruit 10% CHO	Butter	Cream 20%	Eggs	Bread, Zwieback	Cooked Bacon	Milk	Skimmed Milk	Egg White	Meat 20% Prot., 20% Fat	Fish 20% Prot. 35% Fat
Diabetic	Prot	Fat	Cal	Meals														
Diet	CHO																	
I	12	9	21	253	Breakfast Lunch Supper		50		5	10 7				55 75			25	
II	25	19	44	582	Breakfast Lunch Supper	100	50 50	25	5 15		20 50		10	80 30 55			25	
III	37	28	65	945	Breakfast Lunch Supper	100 100	90	25	5 20 5		50			100 220			50	
IV	50	38	87	1135	Breakfast Lunch Supper	200	150	50	10 20 20	20 10	50		8	110 220			75	
V	62	47	108	1417	Breakfast Lunch Supper	200	50	25	10 25 20	20 10	50	10 4	10	110 110 330			75	
Acidosis																		
I	12	9	3	111	Breakfast Lunch Supper										55 110 65			
II	37	28	5	305	Breakfast Lunch Supper	50 50	40								165 220 220	25		
III	62	47	5	481	Breakfast Lunch Supper	200 100	100	50							220 220 330	12 12		50

CHRONIC ULCERATIVE COLITIS IN CHILDHOOD *

By HENRY F HELMHOLZ, M.D.,
ROCHESTER, MINNESOTA

FOUR cases of chronic ulcerative colitis in children, observed during a period of two and one-half years, were reported in a previous paper.³ As this is the only published account of such cases, it seemed possible, as so frequently happens, that a group of unusual and similar cases had all appeared at the same time. It is now two years since my first report, and it is possible at this time to add seven new cases to the series. Two cases were seen in the second half of 1923, three in 1924, and two thus far in 1925.

REPORT OF CASES

Case 1—A girl, aged ten, came to the clinic from Wisconsin June 21, 1923, with a complaint of skin and bowel trouble. She had had measles, pertussis, and scarlet fever, and her tonsils had been removed three years before. The present illness had begun in February, 1923, with diarrhea, there were seven or eight greenish stools containing a large amount of mucus streaked with blood

daily. For three weeks there had been intermittent fever as high as 103°, then gradual improvement, until at the end of seven weeks the patient was up and about, but still had three or four loose blood-tinged stools daily. During the two weeks before examination fever had reached 102°, and the passage of stools had frequently been associated with tenesmus. Coincident with the onset of the bowel trouble, small ulcers had appeared in the mouth. One week before, the face and hands had broken out.

At examination the patient had a temperature of 101°. The blood count revealed hemoglobin 50 per cent, 3,960,000 erythrocytes, and 15,000 leukocytes. There were numerous pustules on face, body, and hands, and red areas over the knees, wrists, and fingers, with some tendency to pustulation in areas on both hands. The condition was diagnosed as impetigo, possibly pemphigus. The general examination was negative except for tenderness in the region of the rectum.

mild diarrhea and some pain. The stools were thin and explosive. The diarrhea had become gradually more marked and the pain worse. He had passed three or four stools a day and an equal number at night. Shortly before coming to the clinic the stools had become watery and streaked with blood. In spite of treatment, the condition had remained about the same, being definitely worse in the winter. He had lost weight. Numerous stool examinations before coming to the clinic had showed blood and mucus but no parasites, except on one occasion when it was thought that an ameba was found.

The boy was rather pale and 10 per cent underweight. The hemoglobin was 65 per cent, the erythrocytes numbered 3,000,000, and the leukocytes 7,800. The von Pirquet and Wassermann reactions were negative. A roentgenogram of the colon was typical of chronic ulcerative colitis with a great deal of spasm in the ascending colon and hepatic flexure (Fig 4). Proctoscopic examination revealed diffuse hyperemia of the rectosigmoid mucosa with the typical granular, glazed appearance of ulcerative colitis.



FIG. 4 Roentgenogram of the colon showing spasm in the ascending colon and hepatic flexure

The boy was hospitalized and given the usual treatment of tincture of iodine, minims 5, and kaolin, but in spite of this and dietary measures, he became gradually worse. Nineteen days after admission he was given a transfusion of 450 c.c. of blood which proved very beneficial. The bowel movements decreased markedly in number, and blood disappeared from the stool. There was a gain in weight, and proctoscopic examination showed some improvement, although a roentgenogram showed no change. The child's weight,

which had dropped from 96 to 88 pounds, rose to 97 pounds just before dismissal.

Case 5—A girl, aged eleven, came to the clinic from Nebraska, complaining of bleeding from the bowels. She had had measles, mumps, pertussis, scarlatina, and influenza in 1915, then had apparently been well until March, 1923, when she complained of severe abdominal cramps. Cathartics had been given without effect. An enema had returned clear water and bright red blood. The patient had continued to have large quantities of blood in scanty stools for ten days. For six weeks the bloody stools had continued for three or four times a day, the hemoglobin falling as low as 15 per cent, and the erythrocytes to 1,500,000. The condition gradually improved, and by the end of six weeks the blood in the stools had disappeared. Then the patient had been practically well for ten days. In the middle of August she had begun to complain of headache and loss of appetite. Following a week of constipation, an enema brought forth large amounts of blood, again with a good deal of pain, and bloody stools. This condition had lasted for six weeks. She had improved rapidly and had gone home in fairly good shape. The last attack had started four days before coming to the clinic with considerable blood in three or four stools a day.

On admission the girl was rather healthy looking and 2 pounds overweight. The physical examination was negative except for pain and tenderness on palpation of the abdomen. She complained of a great deal of pain on rectal examination. The hemoglobin was 65 per cent, the erythrocytes numbered 4,000,000. A roentgenogram of the colon was negative. Proctoscopic examination showed the mucosa of the rectum and sigmoid to have numerous small superficial ulcers on an inflammatory base, the involvement being more marked in the sigmoid. A diagnosis was made of chronic ulcerative proctosigmoiditis.

The patient was sent to the hospital where on a soft diet she continued to have from five to seven bloody stools daily, the blood frequently being clotted. She lost 3 pounds in four days and had no appetite. A transfusion of 450 c.c. of blood was given, after which the bowel movement decreased and contained smaller amounts of blood, although the pain was about as severe as before. Culture of a stool showed typical streptococci. A second transfusion was given and about a week later the stools were only occasionally streaked with blood. The amount of blood was definitely less but there was not the striking result that there had been in the other cases, particularly with regard to the disappearance of blood and improvement in the general condition. Operative interference was suggested but not urged.

Case 6—A girl, aged twelve, from Oregon, came to the clinic in February, 1925, complaining of bloody dysentery. She had had influenza at the age of four, and the tonsils had been removed

state of his blood, he was given 400 c.c. of his mother's blood with immediate and striking effect. His appetite returned, and within twenty-four hours the stools became pasty, free from blood, and normal in number and color. During the next week he gained 65 pounds and was dismissed greatly improved.

He returned to the clinic in April, 1924. He had been well until about the first of March when, following a cold, the stools had again become loose, watery, and tinged with blood, and numbered four or five daily. There was marked general weakness. As this time a roentgenogram of the colon definitely indicated ulcerative colitis (Fig. 3). Kaolin, 2 drams, was given three times a day.



FIG. 3 Roentgenogram taken at the second visit, showing chronic ulcerative colitis (Case 2)

In July, 1924, he returned again with the condition apparently practically unchanged. He had gained no weight since his last visit. The roentgenogram showed chronic ulcerative colitis with some spasm in the cecum and terminal ileum, but proctoscopic examination revealed very marked improvement. Cultures were made from the stool, a diplococcus was isolated, and a vaccine prepared. One-tenth of a cubic centimeter was given for a week then the amount was increased by 0.1 c.c. at each dose until 1 c.c. was given.

On the patient's return in November, 1924, he was in fairly good condition, but had frequent stools, about as before. Because of the splendid reaction to his first transfusion he was given another without the striking result seen before. There was a severe reaction because it was given seven days after a small-pox vaccination. It was

given at this time because the patient lived at a distance and could not remain long. At present the boy is going to school but feels tired and still has two or three watery stools daily, with a little blood occasionally.

Case 3—A boy, aged eight and one-half years, living in Minnesota, came to the clinic January 29, 1924, complaining of bloody diarrhea. He had had measles, mumps, pertussis, scarlatina, and influenza in 1922. Since April, 1923, he had had recurring headaches. The bloody diarrhea began in September with six to eight bloody stools daily. This condition had lasted three or four days, and since then the stools had been constantly loose or watery and contained blood. Headache had been less marked since the onset of diarrhea.

The patient was a fairly healthy looking boy, 10 per cent under weight. His temperature was normal. The tonsils were slightly enlarged, but the general examination was negative otherwise. The blood count showed 71 per cent hemoglobin, 4,320,000 erythrocytes, and 9,600 leukocytes, with a normal differential count. The Wassermann and tuberculin reactions were negative. *Entamoeba histolytica* was found in one stool only, and *Entamoeba coli* was found in a later specimen. Pus and blood were present. Culture of the stool was repeatedly negative for typhoid and dysentery bacilli. Proctoscopic examination revealed a mild granular appearance of the mucosa. The diagnosis was granular proctitis. A roentgenogram of the colon was negative.

The patient was given emetin hydrochlorid, 0.025 grain, and coal-oil enemas, but as the stools were constantly negative after the first injection, the specific medication for *Entamoeba histolytica* was discontinued. In spite of negative findings, the condition became progressively worse. One month after admission the child developed a throat infection and the anemia became more severe with exacerbation of symptoms. A second roentgenogram of the colon, taken one and one-half months later, was definitely positive for chronic ulcerative colitis, although proctoscopic examination showed only a mild proctitis. At times, the stools would improve, then for no apparent reason they would become watery with definite streaks of blood. At about this time a transfusion of 150 c.c. was given. There was definite improvement in the number and character of stools for a short time, but before the patient left the hospital they again contained a considerable amount of blood. Roentgenograms taken before dismissal disclosed the condition unchanged, proctoscopic examination disclosed a mildly granular condition of the mucosa but no active ulceration.

Case 4—A boy, aged twelve, living in Minnesota, came to the clinic complaining of diarrhea. Two years before, he had begun to have stomach trouble with much belching of gas and the passage of gas by rectum, accompanied at first by a

fluctuation and exacerbation with acute infection. As in Case 1, local lesions in the mouth and on the skin, and particularly perirectal infection, are usually of bad prognostic import.

The anemia is usually not so marked as would be expected from the constant loss of blood, and the nutritional condition is remarkably good considering the diarrhea. The diagnosis rests essentially on the proctoscopic findings of a glazed mucous membrane and, in the later stages, on a granular appearance of the mucosa. The roentgenograms are pathognomonic of the disease, the colon appearing smooth and without haustra throughout the diseased portion. Later there is definite contraction with narrowing. The lesions seem to develop in the rectum and ascend to the cecum, but rarely if ever involve the ileum.

COURSE

The responses to recent letters sent out to eight of the patients still living indicate that even in the most severe and protracted cases there some signs of improvement. In only one case has there been no improvement in spite of medication, vaccine therapy, and surgical treatment.

PROGNOSIS

On account of the satisfactory response to the letters, the bad prognoses formerly given must be reconsidered. With a definite etiologic factor established, it would appear that results should be even better in the future. If the specific therapy of Bergen and Logan continues to be so efficient, it will greatly increase the favorable outlook. Vaccine was tried in Case 2 without much improvement. In Case 7 the response to vaccine therapy was satisfactory. Transfusion in several instances seemed to bring about a change in what appeared to be a progressive downhill course.

TREATMENT

With the establishment of a definite etiology, our main effort must first be to locate and remove

possible foci of infection, second, to treat with a specific vaccine, and third, to improve the child's general, as well as specific, resistance by transfusion.

Residue-producing food may be reduced to a minimum and plenty of carbohydrate given, but, as a rule, the improvement is not very great. The use of large doses of tincture of iodine has produced some striking therapeutic results, but is far from a specific. Kaolin given in large doses of from 15 to 30 grains or more a day seems definitely beneficial, but it is rather difficult for children to take over long periods. Irrigations have not been well tolerated and have been discontinued because no definite benefit has been observed from them. Lastly, if all else fails, an appendicostomy or ileostomy should be performed and the colon put entirely at rest. Unfortunately, even this does not always bring improvement. We are still watching a little patient who had an ileostomy over two years ago and is still in a state of marked emaciation and general weakness.

LEGENDS

Fig 1 Roentgenogram of the colon, typical of chronic ulcerative colitis.

Fig 2 Later roentgenogram, showing improvement.

Fig 3. Roentgenogram taken at the second visit, showing chronic ulcerative colitis.

Fig 4 Roentgenogram of the colon showing spasm in the ascending colon and hepatic flexure.

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THE RELATION OF DIET TO THE EYE*

By ARTHUR M. YUDKIN, M. D.,

From the Departments of Surgery, Section of Ophthalmology, and Physiological Chemistry of the Yale University School of Medicine, New Haven, Conn.

THE ophthalmologist has often seen ocular disturbances which were probably due to irregularities in diet. The idea that diseases of the eye may be associated with exceptional dietary conditions is not new. As early as 1835, a condition of hemeralopia or night blindness was found among Russian peasants who observed the customary lenten season. Some investigators also

noted dryness of the conjunctiva and softening of the cornea which was progressive during these fasts. A more aggravated ocular disturbance was found among nurslings who suffered from serious malnutrition because of the religious fasts practiced by the mothers. This condition was not only observed in Russia but a similar ocular manifestation was seen in England among the infants of the poor whose diet was supposed at that time, to lack nitrogenous ingredients. The affection

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at that time. The same year, following measles, she had had pneumonia, after which there was a bloody dysentery. At times she had passed as much as "a teacup of coagulated blood, just after the feces." There had been from six to eight stools a day, although they were fewer at certain periods. This condition had been almost constant since, except at certain short intervals when the bowels would be very nearly normal.

The general examination was practically negative except that the child was about 8 per cent underweight. The hemoglobin was 61 per cent, and the erythrocytes numbered 3,500,000. The stool showed many erythrocytes and pus, but no parasites. There were no roentgen-ray findings typical of chronic ulcerative colitis. Proctoscopic examination revealed the finely granular condition of the mucosa of the rectum and sigmoid with a few scattered irregular ulcers, and slight contraction of the bowel. The patient was unable to remain for treatment.

Case 7—A boy, aged fifteen, came to the clinic from Wisconsin in February, 1925, complaining of the passage of blood and mucus from the bowels. For the last four or five years he had been subject to spells of diarrhea, accompanied by a certain amount of hemorrhage. These attacks, however, had not been severe enough to interfere with his well-being until a year before, when following an attack of grippe, there was mucus as well as blood in the stools. Saline irrigations followed by starch enemas had helped the condition somewhat. Six months later he was improved, but whenever he discontinued the washings for two or three days the blood would return.

The general physical examination, except for enlarged tonsils 3, with fibrous plugs, was negative. The blood count showed 65 per cent hemoglobin, 4,280,000 erythrocytes, and 8,000 leukocytes. The roentgenogram of the colon was negative. Proctoscopic examination revealed a coarsely granular mucosa of the rectum and sigmoid which bled easily. A diagnosis of granular proctosigmoiditis was made. Cultures from the rectal mucosa showed a pure culture of short-chained streptococcus. The tonsils were removed, and on culture showed streptococci and diplococci. A vaccine was made, and treatment with this for two months has produced considerable improvement. Each time after injecting the autogenous filtrate there has been a slight amount of blood in the stool.

DISCUSSION

This series of cases, added to those already reported, forms a very distinct group, characterized by chronic mucopurulent diarrhea associated with the intermittent or constant presence of blood in the stools.

Etiology—The geographic distribution of the cases, four from Minnesota, one from Wisconsin, one from Nebraska, and one from Oregon, seems to indicate that local conditions do not play a part in etiology. The relationship of parenteral infections to exacerbation has been well recognized, but not until the recent work of Barger has it seemed probable that infection, particularly focal infection, plays a direct part in the etiology of chronic ulcerative colitis. In 80 per cent of his cases he isolated a characteristic diplococcus in cultures made directly from the ulcers. He was unable to isolate the same bacteria from the feces. He has produced experimentally in animals typical lesions in the colon with organisms isolated from foci (teeth, tonsils), as well as from the ulcers, of patients with ulcerative colitis. He has further shown that removal of these foci produced astonishing therapeutic results. The excellent results obtained from transfusions, in the absence of any marked anemia, may readily be explained on the basis of a specific effect of the transfusion on the local infection, such as it has in erysipelas in infants. One child has remained well since the transfusion eighteen months ago. It seems probable, therefore, that chronic ulcerative colitis is a disease that is best explained on the basis of a specific localizing power of an organism. We have for the first time a definite cause for chronic ulcerative colitis, so the term "non-specific ulcerative colitis," as recently used by Lynch and Filsen, can be discarded.

Pathology—As there were no fatalities in this group, nothing new can be added regarding the pathologic changes in the colon. Of special interest is the vascularity of the mucosa, accounting for the large amounts of blood in the stools, and the sclerosis of the muscularis, probably accounting for the absence of haustra and the lead-pipe appearance of the colon in the roentgenogram.

DIAGNOSIS

The diagnosis of chronic ulcerative colitis is based on the persistence of hemorrhagic mucopurulent diarrhea over a long period with intervals of improvement and recurrence. None of the usual etiologic agents—amebae, the bacillus of dysentery or of tuberculosis, or the *Spirochaeta pallida*, is found. The isolation of the diplococcus by Barger seems to point to a definite etiologic factor, contrary to the statement in my first paper. In one patient a single finding of *Entamoeba histolytica* was reported, but in spite of specific treatment for amebae, the condition continued to grow worse. The age of onset was as follows: at four years in one case, at seven years in one, at ten years in four, and at eleven years in one. Three of the seven patients had had symptoms for less than a year, two patients from one to two years, one for five years, and one for seven years. There is a tendency for the diarrhea to show

A slight edema of the eyelids becomes manifest, and the viscid lacrimal secretion assumes a sort of serosanguineous character accumulating in the inner canthi in the form of crusts. The hair of the lids falls out, and the latter become thicker. When the swollen lids, which at this stage may be matted together with a dry secretion, are pushed back, accumulations of semisolid, fat-like, yellowish-white patches of secretion or perhaps exfoliated epithelium in the upper and lower fornices often appear.

In the early stages, the cornea shows no visible changes except for the marked congestion about its junction with the palpebral conjunctiva. With the progress of the eye disturbance and following the swelling of the lids, the cornea shows some signs of haziness particularly about the periphery. As the patches increase, the normal corneal reflexes disappear. Frequently they are seen on the center of the cornea but more often extend on to the corneal surface from the fornices. Thereupon the cornea becomes dry, lusterless and oily in appearance, losing its normal transparency.

In my earlier observations, I thought that the central, fat-like plaques were ulcers, but as the work progressed, it was found that they could be easily removed from the cornea. In order to see how much destruction of the cornea is produced when the plaques are removed, the tissue was stained with fluorescein, to my surprise, it rolled over this area as water does over an oily surface. Seen through a corneal loupe, the tissue seemed to be intact, but a slight swelling in the form of a bleb occupied the areas from which plaques had been previously removed. At such times the animal showed marked debility owing to its nutritional decline. Furthermore, if the experiment was continued, the corneal tissue showed frank ulceration, which stained with fluorescein, and finally, panophthalmitis set in with complete destruction of the eye.

The iris observed in the early stages of the experiment showed very little change, but when the congestion of the conjunctiva was marked, the folds of the iris, observed with a Berger loupe, also became prominent through congestion. Because of the nutritive decline of the animal and the haziness of the cornea at such stages, further accurate observations on the iris became almost impossible.

The pathologic changes in the eyes of experimental animals which were reported were for the most part those which resulted from inflammation and destruction or necrosis of the cornea. With the object of determining the character and site of origin of the initial lesion, and the sequence of changes leading up to the condition of xerophthalmia, a careful histological study was made of the eye and the adjacent structures, including the lids and paraocular glands. These studies, we believe, throw some light on the pathogenesis of

the process, and indicate that the common conception of the eye condition as primarily a lesion of the cornea is incorrect.

In ophthalmia produced in rats by diets deficient in vitamin A, lacrimation is an early symptom, whereas later the secretion decreases with a drying of the conjunctiva. This phenomenon suggested the possibility of an involvement of the paraocular glands in this condition. A second observation that led to investigation of the glands was the fact that the lesions resulting from dietary deficiency generally begin simultaneously in both eyes, with relatively little difference in the rapidity of development on the two sides. Although clinically one eye may appear to be unaffected, microscopic investigation shows that unilateral involvement is exceptional. These considerations indicate that while the character of the eye lesion is essentially that of a bacterial infection of the conjunctiva, there is probably some disturbance outside the eye which makes the infection possible. Since it is known that the lacrimal secretion has bactericidal properties, it seems possible that such a disturbance might lie in the activity of the glands that supply the secretion. A careful histological study of the paraocular glands, therefore appeared warranted. A brief discussion of the anatomy and physiology of these little studied glands may make for clearness.

In the majority of mammals, the conjunctival secretion is supplied for the most part, by two small organs, the lacrimal and the Harderian glands. There are, however, in addition, the Meibomian glands, specialized sebaceous glands which lubricate the margins of the lid, and numerous solitary mucous glands scattered through the conjunctiva of the lids.

In certain species, including the rat and mouse, the lacrimal apparatus consists of two parts, one, intraorbital, the other, extraorbital. The former lies generally behind the eyeball while the latter is found near the angle of the jaw in close relation with the parotid.

The Harderian gland is situated intraorbitally, generally in close apposition to the eyeball. In man, and other primates, it is a small vestigial structure. In the rat, mouse and rabbit, and other animals having a well developed nictitating membrane, or third lid, the gland is quite prominent, and in most of these species is considerably larger than the intraorbital lacrimal, with which, in the rat and mouse, it is closely associated. The amount of gland tissue is proportionately far greater than in man. A histological study shows marked changes in the Harderian gland in this dietary disorder, but little if any in the lacrimal.

I found that if in addition to the lack of vitamin A there is a deficiency of phosphorous or calcium, the ocular disturbance appears earlier in the experiment.

In order to cure the eye disease it is necessary to add the missing "little something" to the diet.

generally attacked both eyes. Keratomalacia was observed in negro children on coffee plantations in Rio de Janeiro where nutritional conditions were said to be poor. By a careful survey of the literature I have encountered numerous references to ocular disturbances in adults confined to prisons, work houses and educational establishments where the food was ordered according to a scheme which today we know is an unbalanced diet.

Of late, the medical profession has recognized the importance of the relation of vitamin deficiency to the general well being of the body. The biochemist has plainly demonstrated by his work in the laboratory, that experimental animals fed on a wholesome diet of protein, carbohydrate, fat and inorganic salts would grow and thrive for a certain length of time, but shortly a multiplicity of lesions would appear. For example, the guinea pig whose diet is made up of oats and cabbage will show a normal growth and health curve, but when the food combination is boiled, scorbutic manifestations may be demonstrated. The bony structure is affected in this deficiency disease. Hemorrhages are found in the periosteal and periodontal tissue and the bone is often very fragile. Hemorrhagic areas have been noted in other parts of the body particularly in the alimentary tract. The joints may be tender and painful. It has been known for many years that certain diets of stale foods produce this very disease among sailors, soldiers and prisoners. It was then noted that if fresh vegetables and fruit were given to these sufferers in the early stages of this disease the pathological conditions disappeared.

Another interesting laboratory experiment is to feed pigeons a diet of highly polished rice whereupon shortly the bird shows progressive weakness followed by convulsive seizures until they die. If the bird is given the bran which has been previously removed from the rice, the pathological condition disappears. This same clinical picture was observed long before the vitamin hypothesis was formulated. In 1884 Admiral Takaki of the Japanese Navy demonstrated during his cruise of about eight months that the peripheral neuritis resulting in paralysis in the disorder known as *beri-beri* had developed because of a faulty diet which his sailors were fed. Scurvy was found to be prevalent among the sailors in the early days of navigation. It is said that Jacques Cartier in 1536 lost some twenty-six of his party from scurvy.

Precisely the same sort of an experience was noted during the great war in several of the fields of operation. In the far east during the siege of Kut, the English soldiers at the front developed scurvy and the Indian troops with the British developed *beri-beri*. Martin tells the story of the African soldiers who were with a British unit in France and were fed the same ration as the British. The latter soldiers seemed

to thrive and showed no manifestations of scurvy whereas the former suffered immensely from this malady. In order to cure them of this pitiful condition they were denied fire wood for cooking their food and shortly scurvy disappeared.

I have cited briefly a few incidents in which different members of the body may show pathological disturbance due to the lack of some little thing in the food even though the diet was made up of the proper amounts of protein, carbohydrates, fat and inorganic salts. Poverty of certain rations in phosphorus, calcium and other inorganic nutrients may give rise to definite pathological changes in the animal body. McCollum and his co-workers have recently discovered that certain experimental animals develop a type of ophthalmia due to the lack of some inorganic substances. It has also been shown that the incidence of goiter grows with the lack of iodine associated with increasing distance from the sea, so that the region of the Great Lakes is quite goitrous.

With the aid of animal experimentation the biochemist has blazed the trail into the unexplored regions of dietics so that the clinical investigators may travel with greater certainty. The reasons for it is that today we are able to control our results more accurately and in that way study the pathological aspect of the ailment in its different forms. The newer ideas of nutrition clearly demonstrate that laboratory animals fed a mixture of purified proteins, carbohydrates, fats and artificial inorganic salts require vitamins for normal growth and health. With this present knowledge it is possible to vary the amounts of ingredients so that several combinations of diets may be used.

It was by this method of systematic investigations of diet on the albino rat that my attention was called to the lesions of xerosis of the conjunctiva and keratomalacia. This ocular manifestation was found by laboratory workers, notably Osborne and Mendel who tried to alleviate this eye disease with ocular medicaments but it was obdurate to general treatment. With the finding of the cause of this disturbance the condition cleared up like magic by the addition of the missing dietary factor. To illustrate this more specifically let us follow the clinical course of the ocular disturbance.

When animals are on a diet devoid of vitamin A for some time the first sign of an ocular complication is that the eyes water very freely, and the animals seem to dread the light more than a normal individual does. The normally prominent protruding eye of the rat gradually recedes into its bony orbital socket, and the photophobia increases. The animal facies assumes a sleepy appearance. Lacrimation increases and, instead of being watery, becomes more viscid. It is at this stage that the animal shows some signs of ocular irritation and rubs the lids with its front paws.

ease and from all outward appearance seemed to be a slight cold but disappeared when the infants general health improved?

In this era of preventive medicine, it is just as important that the infant have a well balanced diet with the proper amount of vitamins as it is to place silver nitrate in the conjunctival sac of the new born as a precautionary measure against gonorrheal ophthalmia. It is just as important to see that the child receives a wholesome diet rich in fresh milk, butter, vegetables and cod liver oil during the period of diminished resistance and vitality, particularly after an attack of the measles, whooping cough, scarlet fever and other

prevalent children diseases. Our American ophthalmologist like our clinicians have been inclined to minimize its practical significance because of the rarity of reports of human cases which have appeared in this country and that the malady is only of an academic interest rather than a serious medical problem. The unfortunate experiences of Europe with its less favorable economic conditions and food problems, where the disorder in question has been seen in great numbers, should make us physicians in America better prepared to recognize xerophthalmia, to understand its origin and to treat, or better still, avert it.

CONSERVATISM IN THE TREATMENT OF ECLAMPSIA

By HERVEY C WILLIAMSON, M D

NEW YORK CITY

THE treatment of eclampsia has passed through several definite epochs. First, a radical period, when immediate delivery was considered the crux of the treatment. This treatment was based on the theory that fetal and placental metabolism was an etiological factor. The technique of cesarean section had not been perfected while this method was in vogue, so accouchement forcé was practised. Manual dilatation followed by forceps or version was done. As, under this plan, there was an extremely high mortality from shock, hemorrhage, and sepsis, it was gradually abandoned. The second era might be called moderately conservative. The idea still persisted that delivery was essential in the treatment and this was accomplished by use of the hydrostatic bag followed by spontaneous or less traumatic operative delivery. The present tendency is toward pure conservatism in the treatment of this disorder.

Let us consider the rationale of this treatment. For fifteen years, Strogonoff has practised this type of treatment with astonishing results. His mortality figures are so much lower than those from other clinics that they should be considered seriously. Last year, Stander visited Leningrad and was allowed to investigate thoroughly Strogonoff's records. He found that there had been 390 cases of eclampsia in two clinics over a period of fifteen years, with but 30 deaths, a gross mortality of 7.7 per cent. Strogonoff's recent statistics are lower, which he attributes to a more rigid adherence to the technique than in the earlier years. Stander concludes, in part, that 70 per cent of Strogonoff's patients had no convulsions before admission to the clinic and 50 per cent of these had only one convulsion—obviously mild seizures. Furthermore, he finds that two-thirds

of Strogonoff's maternal mortality occurred in patients who had had four or more convulsions before admission to the clinic. From 1916 to 1924, among women who had convulsions before admission to the clinic, the mortality was 9.3 per cent. Possibly some of Strogonoff's records should not be accepted, as he includes several patients who had convulsions ten or more days post partum and probably some others who had chronic nephritis with convulsions.

Wilson, in a recent paper, reports a 50 per cent reduction in the maternal mortality of ante and intrapartum eclampsia under conservative treatment at the Johns Hopkins Hospital.

As long as the etiology of eclampsia is obscure there will be variations of opinion as to its treatment. However, there now seems to be a unanimity of opinion in favor of conservatism though the methods of necessity must be empirical. Notwithstanding the criticism of Strogonoff's statistics we decided, in 1923, to adopt his method with slight variations.

On the Second Obstetrical Division at Bellevue Hospital the following instructions are given to the Resident Obstetrician.

TREATMENT

- 1 Prophylaxis (a) Antenatal care.
(b) Induction when high blood pressure and albuminuria persist and eye symptoms are severe.
- 2 Hospitalization.
- 3 Minimum obstetrical interference.
- 4 Medical treatment.

After Convulsions Have Occurred

- 1 Isolation.
- 2 Attention to the respiratory passages.
- 3 Morphine Sulph. 0.15 gm ($\frac{1}{4}$ gr) at once.
- 4 Secure specimens (1) Urine (2) Blood. (3) B. P. observations (4) Obstetrical examination (5) Eye examination.

* Read at the Annual Meeting of the Medical Society of the State of New York, at Syracuse May 13, 1925.

The animal is given 5 drops of cod liver oil daily but more accurate work has shown that only one milligram or 1/50 of a drop of good cod liver oil per day will cure the ocular disturbance and stimulate growth in rats

There are several instances of the occurrence of conditions described in the literature as xerophthalmia and keratomalacia which seem to be beyond question, cases in which the disease has occurred in man as the result of specific starvation for the dietary essential vitamin A. The records particularly referred to are those of Block. He tells a most interesting story of how the children of Denmark, particularly those of the poor, suffered from this ocular disturbance which was due to the fact that the Danes sold their dairy products to the warring nations and used margarine as a substitute. He has investigated over seventy cases of this eye disturbance. Most of these were under his personal supervision for a long period of time before the xerophthalmia occurred. It was impossible to explain the presence of the disturbance in all the cases on the score of deficiency of vitamin A in the diet alone. For a good portion of the children received some of the essential factor even though the amount of fresh milk was small or it was stale at times or pasteurized and diluted half or more with water and boiled with flour to make gruel. He concluded that xerophthalmia may arise partly because of the deficient supply of vitamin A, due to lack of the essential in the food or the accompanying disease conditions of the digestive tract which hinders assimilation of this factor and partly from decreased consumption of vitamin A during periods of growth and in chronic wasting diseases. Yet Stransky has reported xerophthalmia in four cases which did not improve with the addition of vitamin. It is possible that these children consumed considerable of the essential and could not absorb it and therefore passed through the alimentary tract unused. The administration of the vitamin A by some other route must be used.

Blegvad, who made a careful survey of the cases found in Denmark has given subcutaneous injection of a concentrated cod liver oil preparation. The xerosis disappeared as a result of this injection. In five cases of xerophthalmia Block injected the ordinary cod liver oil which was sterilized in boiling water. It was previously sealed in glass tubes to as to prevent the access of air. For the first injection 0.5 cc was given and then 1 cc daily for the first four to eight days. The cod liver oil injections were painless and there was no reaction at the site of inoculation for the first few days. After from four to eight days, a rather large infiltration always appeared with redness and tenderness at the site of inoculation attended by indisposition and intermittent fever, the evening temperature being between 38°-39° C. This lasted almost a week, but the

tenderness persisted for several weeks afterwards and the infiltration disappeared little by little. In spite of these inconveniences he considers the advantages are so great that we ought to give cod liver oil injections to every patient in whom the cornea is attacked. To insure against idiosyncrasy a small dose should be given first. This method was adopted because of the experimental evidence that B and C factors can be absorbed when injected subcutaneously and intravenously.

From many quarters of the world numerous cases of hemeralopia or night blindness have been reported. Accompanying the descriptions of this disorder there is a history of faulty nutrition. Fernando describes a condition of night blindness found in the Philippines which occurs without xerosis of the conjunctiva. Epidemic night blindness is observed in settlement houses, orphanages, and other places where poor diet is usually served. In cases of beri-beri of the rudimentary type hemeralopia was the most prominent complaint. Elliot states that there is no necessary relation ship between xerosis of the conjunctiva and night blindness which they encounter in the tropics. The condition disappears with the ordinary treatment of beri-beri. Little reports the prevalence of night blindness among the people of Newfoundland. The diet of the inhabitants of this northern climate is probably low in vitamin A as well as deficient in other respects so that either beri-beri or scurvy would give them this ocular manifestation.

In Japan where there is no dairy industry, the supply of vitamin A must come from other sources. The inhabitants along the coast where fish is plentiful do not suffer from this malady. Mori has described a children's disease occurring in Japan during the summer months as Hikan, which is identical with the ophthalmia of Brazil and the xerosis of the conjunctiva and cornea seen in Russia during the lenten fasts. The children suffered from diarrhea in addition to the xerosis of the conjunctiva and keratomalacia. The eye symptoms were relieved by chicken livers, eel fat and cod liver oil—food products which we know today contain vitamin A. Following the earthquake in Japan it was reported that several hundred school children in Tokio suffered from this same disturbance.

It so happens that in America where this problem of xerophthalmia has been studied from every possible experimental angle, the condition of living has been good and the human clinical picture of this disease is therefore rare. Yet I venture to say if a census of the blind in this country were taken we would find many cases in which blindness came on in the early part of the child's life, due to improper feeding. The general practitioner and pediatrician can probably add a few more cases to the list that have not been reported. How many of you have seen cases of malnutrition which were accompanied by eye dis-

justifiable. If a patient recovers from the seizures and symptoms such as hemorrhage develop, labor should be induced. We also believe that in a patient who has recovered and who has a living full term child, labor may be safely induced by castor oil and quinine or by the use of a bag. We have considered rupturing the membranes when an eclamptic patient enters the hospital but have decided, for the present, to adhere closely to our modified plan.

SUMMARY

While the number of eclampsia cases reported is small, our results have been better since we

have adopted this definite medical plan of treatment. We wish to emphasize the fact that there should be no obstetrical interference during the seizure. Obviously a case of intrapartum eclampsia with dystocia must be treated as is any other such case. Induction after the attack has been alleviated may be used for intra-uterine fetal death or for a living full term pregnancy. The time element for the administration of morphine and chloral is, we believe, important. Lastly the value of venesection should not be overlooked.

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THE INTRAVENOUS USE OF PARALDEHYDE IN ECLAMPSIA

By WILLIAM EDGAR CALDWELL, M D

NEW YORK CITY

A DRUG which will immediately control convulsions and delirium is of great value in obstetrical practice. For instance, in status epilepticus during pregnancy, in serious cases of chorea, in maniacal stages of puerperal insanity, but especially in the toxemias of pregnancy, with eclampsia. In recent years more and more emphasis has been placed on the effect on the nervous system of the toxemias of pregnancy. Great efforts are made to prevent the exhaustion of the woman by the nervous excitement, allowing time for the elimination of the toxins. The patients are handled as little as possible. No longer are we operating on patients during the height of their attack. The least manipulation possible in the care of the patient has given the best result. Morphine has proved invaluable and has greatly reduced the mortality in such cases. Immense doses have frequently been given. Morphine frequently causes a primary excitement stage and also causes vomiting, thus increasing the danger of asphyxia. Hyoscin and scopolamine have been used with good effect, but they are both dangerous cardiorespiratory depressants. The use of chloroform, as advocated by Stroganoff for controlling convulsions and preventing nervous irritation during necessary manipulations, is not entirely satisfactory and frequently is dangerous. Ether, with its primary excitement stage, has also proved unsatisfactory. Tweedy has called attention in his various articles to the dangers of medication by mouth, the drug not being absorbed and the ingestion of anything into the stomach increasing the dangers of asphyxia from vomiting. Rectal medications in such conditions are slow and uncertain in action. We learned from Dr. Walter Palmer that, both as an interne, and while on the Attending Staff at the Massachusetts General Hospital, and afterward at the

Presbyterian Hospital, he had used paraldehyde in 1 cc. to 3 cc. doses, directly into the vein, with very satisfactory results and no accidents. Very little could be found in the literature on the intravenous use of paraldehyde.

The credit for being the first to use paraldehyde into the vein was claimed by Noel and Soutter in 1912. They gave 15 cc. of paraldehyde in 15 cc. of ether with 15 cc. of 1% cold saline solution directly into the vein. Within 40 seconds of starting such an infusion the patients were asleep, and within 90 seconds the corneal reflexes were gone, allowing them to do short operations. The effect of the drug began to disappear as soon as the infusion was finished. The patients had a short, deep sleep, from which they could easily be aroused and the relaxation continued for several hours. They reported no after effects from the use of the drug in this manner.

Atkey in 1913 gave 5 cc. of paraldehyde in 150 cc. of saline solution to control the convulsions of tetanus, repeating it several times with good results. The patient ultimately recovered.

Homan and Hassler also in 1913 reported the use of paraldehyde in 2½ and 3% solution, both alone and with ether. These same authors in Gwathney's "Anesthesia," 1924, call attention to the crenation of the red blood cells, following the use of paraldehyde and ether in large doses, but claim that the cells returned to normal within 4 hours.

Collier reported 7 cases in 1914 and Cale reported in the same year 6 cases in which 5 to 15 cc. of paraldehyde was given intravenously. All these authors call attention to the danger of using warm saline unless it is well and constantly shaken, as paraldehyde gathers at the top of the solution.

Both Dr. Chas. C. Lieb, Professor of Pharma-

- 5 (a) If not in coma, castor oil 64 cc. (2 oz)
(b) If in coma, gastric lavage. Leave in magnesium sulph 64 cc. (2 oz) saturated solution
- 6 Colonic irrigation every 6 hours
- 7 Chloral hydrate 2 gm (30 gr) in 100 cc. of water by rectum 1st hour
- 8 If convulsions occur and blood pressure is over 200, venesection 500 to 800 cc
- 9 Morphine Sulph 0.15 gm ($\frac{1}{4}$ gr) 3rd hour
- 10 Chloral Hydrate 2 gm (30 gr) 7th hour unless in coma
- 11 Chloral Hydrate 15 gm (22 gr) Unless in coma and there has been an absence of convulsions since admission 13th hour
- 12 Chloral Hydrate 15 gm (22 gr) 20th hour With individualization.
- 13 Terminate the labor when the second stage has occurred
- 14 No food for 24 hours Water if the patient is conscious
- 15 Milk 25 oz on second day
- 16 Carbohydrate diet afterwards.
- 17 Do not breast feed the infant the first 5 days

Our treatment differs from the original in the following points We have not given chloroform for the examination, nor have we given oxygen after a convulsion We perform venesection for high blood pressure, whereas Stroganoff removes 400 cc. of blood after the third convulsion As we have found the colonic irrigations, not called for in the original, to be disturbing and possibly harmful to the edematous patients, they have been omitted We do nothing to institute labor in the antepartum cases

Our total number of patients so treated is small but we wish to contrast some of the recent results with those of a former year when moderately conservative methods were used On our service at Bellevue Hospital (6 months per year), in 1922 there were 15 eclamptic patients with 6 maternal deaths, 6 stillbirths, and one neonatal death

15 CASES OF ECLAMPSIA—1922

Ante and Intrapartum Treatment	Maternal Deaths	Stillbirths	Neonatal Deaths
Hydrostatic bag	7	3	1
Forceps deliveries	2	0	0
Undelivered	1	1	0
	10	4	1
Postpartum			
Spont. delivery	4	2	0
Cramotomy	1	0	0
	5	2	0

The Ante and Intrapartum Deaths Were as Follows

1 Para iii 3 convulsions at home. Treated by hydrostatic bag Spontaneous delivery Living baby 7 postpartum convulsions Death 3 days postpartum.

2 Para v One convulsion in hospital. Hydrostatic bag inserted. Expelled in 12 hours 120 mm drop in blood pressure with sudden death. Stillborn baby delivered at time of death.

3 Para i Admitted in coma. 6 months pregnant. 6 convulsions before admission to the hospital. 8 in the hospital Died undelivered 10½ hours after admission.

4 Para i Admitted in coma. 4 convulsions at home. Hydrostatic bag introduced Macerated stillbirth. Re-

tained placenta removed 16 hours later Patient remained in coma and died

The Postpartum Deaths Were as Follows

1 Para ii Admitted in coma. Twins delivered at home. 3 convulsions at home, 6 in the hospital

2 Para vii Delivered premature twins 7 postpartum convulsions

During 1923, 1924, and so far in 1925 there have been 16 eclamptic patients with one maternal death, 6 stillbirths, and 3 neonatal deaths All of these cases have had the medical treatment without obstetrical interference.

14 CASES OF ECLAMPSIA—1923, 1924 1925

	Number of Cases Antepartum	Postpartum	Maternal Deaths	Still Births	Neonatal Deaths
1923	4	0	0	2	1
1924	7	1	0	3	1
1925	3	1	1	1	1
	14	2	1	6	3

The maternal death occurred in 1925 Patient a para ii, 28 years old In coma on admission. No history as to the number of convulsions at home obtainable 3 convulsions in the hospital Routine treatment begun Pulmonary edema developed and patient died about 6 hours after admission

The essential difference between the treatment in 1922 and that of subsequent years is that we have stopped the induction of labor during the seizure. In 1923, the routine as outlined was begun Before the routine was adopted larger amounts of morphine were given than we now use Chloral was not given

The termination of pregnancy of the antepartum cases under the conservative treatment is interesting Two patients went into spontaneous labor on the second and fourth days after admission for convulsions, the first delivered a living baby, the second a six months macerated fetus In two patients the membranes were ruptured artificially on the fifth and sixth days after the seizures and macerated fetuses were delivered One patient passed eighteen days in the ward after the seizures and during this time she had a high blood pressure with albumin in the urine but no further convulsions On the nineteenth day she passed a large blood clot, labor was induced by stretching the cervix, castor oil and quinine were given, and a dead baby was spontaneously delivered The fetal heart had been heard, however, in the early stage of labor In another patient a bag was inserted three days after the seizures A living and apparently normal baby was delivered spontaneously but died of cerebral hemorrhage on the third day

We are in a somewhat anomalous position regarding the induction of labor, advocating it for severe pre-eclampsia but not after a convulsion has occurred We feel that after a patient has been relieved of the convulsions and fetal death has occurred, induction by rupture of the membranes is

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By F W MARLOW, M D
SYRACUSE, N Y

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At an earlier date Fisher in the Transactions of the Ophthalmological Society of the United Kingdom for 1911, is still more emphatic, saying of operative treatment that, "The difficulties are enormous and the results deplorable."

Just to what extent the two more recent quotations may be taken to indicate an improvement in the surgical situation, I do not know, but it seems obvious that the prospect of permanent relief by surgical interference is not great enough to justify a resort to it, until all other possibilities have been exhausted. Presumably there are cases in which the pathological changes are of such a nature as to make any other form of treatment of no avail, and others in which antisiphilitic, glandular, radium and x-ray treatment have proved valueless, the only remaining alternatives being operation or nothing, but as De Schweinitz points out in his Bowman lecture, "Anyone can readily convince himself by an examination of the literature of this subject, that evidence, apparently trustworthy, of the value of glandular feeding is abundant not only in relation to the relief of pituitary headaches, but also, sometimes in a startling manner, where the indications of gross hypophyseal disorder (adenoma, etc.) were present." In spite of this abundance of apparently trustworthy evidence of the value of glandular feeding in these cases, there is no reference to it in the recent edition of Hare's Therapeutics, a very brief reference to it in the last edition of Sajous' Cyclopaedia, and in Blair Bell's book a single statement, that it is sometimes of use in cases of Hyperpituitism, especially cases of arrested acromegaly.

The title of the present paper is a little misleading as it is intended to refer only to the effect of Thyroid feeding on the visual symptoms of Pituitary disease, and the excuse for the paper itself is that I find among my records notes, quite brief for the most part, of five cases of pituitary disease in which thyroid extract was administered.

Before reading the notes, of these cases, it may be of interest to review very briefly some of the cases which have already been put on record in which thyroid extract has been used.

I think that my attention was first called to the subject by a paper by J H Fisher in the Ophthalmic Review for 1908, in which marked benefit both in visual acuity and in the field of vision followed the administration of thyroid extract. Commenting on this case he says that "It appears to show that thyroid extract alone is an adequate remedy for some forms of pituitary hypertrophy, and that the products of the pituitary body and thymus glands are in some cases at least superfluous" and, that administration of thyroid products will supply the economy with something which the pituitary gland by excessive effort is endeavouring to provide," appears to be a simple explanation of the good effect of this treatment.

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Paraldehyde ($C_6H_{12}O_3$) is a polymer of ethylaldehyde. It is a colorless liquid of pungent odor, soluble in 85 parts of water, and freely soluble in alcohol and ether. It is antiseptic. Internally, it resembles the action of alcohol, but it is a much more powerful hypnotic and seldom causes excitement. It has not the effect upon the protein metabolism as has been observed after the prolonged administration of chloral. The danger involved in the use of paraldehyde is that, in large doses, it is liable to paralyze the respiratory center. It does not affect the heart directly. By its action on the nervous system it quickly induces sleep, which lasts several hours. The sleep is quiet, refreshing and dreamless and leaves no bad after effects. Paraldehyde is excreted very rapidly by the lungs and especially by the kidneys. Some authors claim that it is difficult to give an overdose, since the excretion is so rapid. As much as 3 ounces have been given with no bad results.

In May, 1922, we reported to the New York Obstetrical Society the intravenous use of paraldehyde in 15 cases. This was published in the *American Journal of Obstetrics and Gynecology*, September, 1922. Since that time we have used it in 32 additional cases, making 47 cases in all. In the original report the average dose was 1 cc of U S P paraldehyde given directly into the vein. The effect in the majority of cases was startling, the patient relaxed immediately and went into a natural sleep, the respirations became deeper and more regular, the cyanosis cleared up and the blood pressure sometimes dropped from 15 to 20 mercury mm and the pulse became full, regular and much slower. With added experience we have increased the dosage until now we give an average of 2 cc, occasionally as much as 3 cc directly into the median-basilic vein. With these small doses the anesthetic action is very short, but it is sufficient to allow the careful examination of the patient and to make such necessary manipulations as phlebotomy, washing out of the stomach and the rectum without disturbance to or excitement of the patient. The anesthetic action is followed by a considerable period of relaxation and allows time to obtain the physiological action of morphine administered at the same time as the paraldehyde injection. In eclampsics we always give $\frac{1}{4}$ to $\frac{1}{2}$ gr of morphine and repeat with smaller doses until a physiological reaction of the drug is obtained. In over 60% of our cases there have

been no further convulsions after the initial dose. When convulsions do recur we have not hesitated to give a second injection of paraldehyde. In one case $7\frac{1}{2}$ cc were given within the first 24 hours and a total of 13 cc during the first three days. This woman ultimately recovered and the baby was born alive, a forceps operation being necessary after the acute attack had been controlled. We have also used paraldehyde by rectum in $\frac{1}{2}$ to 1 ounce doses, always mixed in oil. This dosage has given the patients a quiet sleep and reduced the amount of morphine necessary. In one case of difficult labor, instead of using ether, as Gwathney recommends, we used paraldehyde, $1\frac{1}{2}$ oz of the paraldehyde being given instead of ether. This woman slept soundly for 14 hours, arousing slightly during the uterine contractions, which apparently were not affected in the slightest degree by the drug. A difficult forceps was necessary for the delivery after full dilatation of the cervix. In her previous labor the same operation had been necessary. In this case we had difficulty in resuscitating the baby and it died the following day. The baby's breath smelled very strongly of paraldehyde and whether the death resulted from the effects of the drug or from a birth injury we are uncertain, as autopsy was refused. In the cases where we have used the paraldehyde intravenously we have noticed no bad effects either on the mother or the child.

Paraldehyde is not used for its curative effects in toxemias of pregnancy, but merely as an aid in controlling the patient while other means for relief of the condition are being instituted. And using it in this manner we have been well pleased with the results obtained and have had no accidents.

SUMMARY

- 1 Paraldehyde, either undiluted or diluted with saline solution, can be given very slowly into a vein in small doses with apparent safety.

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was pale. In other respects, including an x-ray examination of the skull, examination was negative. Thyroid exact in one grain doses, after each meal was ordered.

She was seen again six weeks later when she said that she was better in every way. The night sweats had ceased and the bloating gone out of her hands. Test of the visual acuity gave the R eye 6/18+, and the L 6/60, but she was emphatic in the statement that she saw much better.

After this visit she passed completely from observation.

Case 4

Case 4—Sister J., age 55, first seen November 15, 1915. She then stated that the outer half of her left eye had been quite blurry for two months, and that for the past month she had been unable to see when she looked down.

Her vision was R 6/36 improved by refractive correction to 6/24, L 6/60 improved by refractive correction to 6/24—

Her pupils were wide and reacted only slightly to light. There was questionable pallor of both optic discs. There were opacities in both lenses.

Examination showed a peripheral loss in the temporal half of each field, not symmetrical, a complete temporal green blindness, and an incomplete temporal blue blindness. Examination otherwise, including, x-ray negative.

Thyroid extract in $\frac{1}{2}$ grain doses, 4 times daily, was prescribed, but had to be discontinued on account of nausea, vertigo, anorexia and a rapid pulse, and pituitary extract was substituted.

When last seen (June 2, 1916) she felt that she was better. Though tests showed no improvement in vision, she thought she could see better. The absence of measurable improvement in vision may perhaps be accounted for by the presence of lens opacities.

Case 5

Case 5 (75-19)—Mrs. M. F., age 36, when first seen on October 9, 1907. Apparently quite well until six months previously. About this time her eyes were examined on account of long standing blepharitis. Glasses had always been satisfactory. Since then failure of vision of uncertain onset had occurred, very gradual in its rate of progress. When seen she complained of blurring, much worse in the left than in the right eye, and of headaches, of a type similar to what she had experienced since childhood.

Married at 23 years of age, she had had two children, no miscarriages. Menses had never

been very regular, usually six weeks intervening, and she had menstruated only once in the preceding six months. She was not pregnant. Hands, feet and face normal.

General health always good. Family history negative, grandparents living to old age.

Examination showed V. R. 6/36, not improved by glasses, L 6/60—, fingers in the nasal field. Pupils reacted slightly. R. O. D. was normal in appearance, but the inner $\frac{1}{2}$ and especially the lower inner quadrant of the L. was pale in comparison with the R.

Examination of fields showed the presence of a bitemporal color hemianopia, with some contraction of the peripheral fields for white. See charts. X-ray examination suggested some calcification or ossification of the capsule of the gland, but was not very definite.

On October 12, R. V. was 6/18+3, L. V. fingers in the nasal part of the field. She was given Iodide of Potassium and later Fowler's solution over a period of about six months without any material change in visual acuity, but with further limitation of the visual fields. Then thyroid extract in either one or two grain doses, twice daily was substituted for all other medication. Three months later her vision had improved to 6/6—2 in the R. eye, that of the left remaining unchanged. She felt better, was less thirsty and had no headache. There was no improvement in her fields. Her vision and generally improved condition were maintained over a period of 10 months after the commencement of thyroid feeding. She then passed from under my observation.

I learned later that she had been operated upon by Cushing, without benefit.

The dosage in the cases quoted and in the five here reported, has varied from 1 to 20 grains daily, and the results seem to have been the same. The material is insufficient to arrive at any reliable conclusion as to how much should be given, but as far as it goes it would seem to indicate that the quantity was of less importance than the nature of the drug itself.

In presenting these cases I do not wish to be understood as holding a brief for thyroid extract as opposed to pituitary extract. With one exception the cases did so well with thyroid that it was continued. I have had practically no experience with the use of pituitary extract.

These cases present symptoms of a mixed type, making it inadvisable to base on them any opinion as to the value of thyroid treatment in any particular form of pituitary disturbance.

thyroid from time to time, otherwise vision would begin to fail and headaches return

In view of cases like the last three it is difficult to refrain from entertaining the thought that in some cases showing pituitary symptoms, the primary factor is some thyroid insufficiency causing a compensatory pituitary hypertrophy

Case 1

Case 1 (9538)—Mrs W E G, age 67, first seen on September 29, 1921, when she gave the following history Since the end of 1920 her vision had been getting blurred, the left eye being the more affected of the two, although it had previously been the better eye She had had a great deal of pain about her eyes, beginning with the left, and in the occipital region Her vision had been variable There was no history of any enlargement of hands or feet

Polyuria was present but she did not admit polydipsia She had gained 10 lbs in 5 to 6 weeks During July, 1921, she was in bed on account of "nerves" When seen she was able to count fingers with her right eye at 3 feet, while with the left eye she was only able to distinguish hand movements in the nasal part of the field Pupils were rather large but reacted fairly well There were some striate opacities in her left lens, and possibly some pallor of both optic discs

Examination of her fields of vision on October 10, with a 10 mm white object showed an almost complete loss of the temporal half of each, the loss involving also the upper quadrant of the nasal field, the lower quadrant being damaged peripherally

In an x-ray examination of her skull neither the anterior or posterior clinoid processes were made out.

Thyroid extract grains 2, twice daily was prescribed at her first visit September 29 On October 10, she was able to count fingers with the right eye at 9 feet and the vision of the left eye had risen to 6/60+1 On October 31, the vision of her right eye had improved but little, while that of the left had risen to 6/12— Her fields also showed a marked increase in size The treatment was continued for 6 months with gradual improvement in her condition, so that when last seen April 4, 1922, vision of the R had improved to 6/60, and the left corrected to 6/6—3 or 4

The improvement in the fields is best appreciated by the charts herewith presented Briefly they underwent gradual but steady improvement so that by April, 1922, the left was completely restored except for about 20° at the temporal margin That of the right also improved markedly, though the last chart shows some loss as compared with the preceding one It is possible that the discrepancy may be an error of observation

due to the low visual acuity and perhaps less perfect fixation

The best information I can get indicates that the visual improvement was maintained until her death of Bright's disease about 18 months ago

Case 2

Case 2—Mrs M E C, age 64, was first seen on October 9, 1917 She complained of a shooting pain through her right eye, blurred vision, so much vertigo that she was afraid to get up to walk, and headaches coming on at night for the preceding two months

She had been gaining weight all the summer, going from 130 lbs to 150 lbs Both polydipsia and polyuria were present She was wearing a No 7 glove whereas she formerly wore a 6¼, a 5½ to 6 shoe whereas a year before she had worn a No 5

Upon examination her vision was 6/12 in each eye, the left being a little worse than the right, and was not improved by glasses Pupils normal Ophthalmoscopic examination was negative Some faint lenticular opacities seen after mydriasis

Examination of her fields showed a normal periphery, but a faint though definite color scotoma on the temporal side of each fixation point.

Thyroid extract grains 2, tid was prescribed. Under this medication her general condition improved remarkably When she was last seen Jan-24, 1918, she was free from pains in her head, and felt quite well The vision of each eye had risen to 6/6, and with both together she was able to read all the letters of the 6/5 line

She had had no return of these symptoms at the time of her fatal illness in the early part of 1923

Case 3

Case 3—Mrs H M, age 57, came for examination May 14, 1915 She gave a history of gradual failure of vision of the L eye for about 7 years, much worse during the past year, and of some recent failure of her right eye Of late there had been some aching in her eyes, and also some dull frontal headache, to which she had previously not been subject In the past two or three months she had been subject to drowsy spells about 2 p.m. She had always been in the habit of drinking a lot of water, but more since the menopause which occurred at about 42. There was some polyuria Night sweats for the past seven to eight months Her hands and feet have enlarged, and she wears a shoe a size larger than formerly

Examination showed V of R eye 6/18—, of the L 6/60 (coming and going) There was a bitemporal hemianopia, and the left optic disc

Mrs. D, aged thirty-four, husband and four children living and well, entered the Memorial Hospital February 16, 1918, with a diagnosis of gastric ulcer. Stomach symptoms began five years before, accompanied by much pain in the epigastrium and frequent vomiting. She vomited blood several times. She was told by a competent internist that she had a gastric ulcer and spent ten weeks in a hospital under dietary treatment. She was better for a time but had recurrences of heartburn, belching of gas, and frequent vomiting. Physical examination revealed a somewhat obese woman with excellent color, who looked unusually well. Aside from some tenderness in the epigastrium and right iliac regions, the physical examination was practically negative. While in the Memorial Hospital, x-ray examination of the gastro-intestinal tract showed a filling defect at the extreme pyloric end of the lesser curvature with marked irregularity of the duodenal cap. The stomach was empty at the end of six hours. A diagnosis of ulcer at the pyloric end of the lesser curvature or of the duodenum was made by the roentgenologist. Gastric analysis was normal and six stools were negative for occult blood. The tonsils were found to be large and infected and were removed two months after entrance to the hospital.

The patient improved somewhat under medical treatment for ulcer but after her return home continued to vomit at frequent intervals. The tenderness in the region of McBurney's point became quite marked and it was felt that chronic appendicitis might be reflexly causing her gastric symptoms. Appendectomy was performed on July 12th. The body of the stomach was found to be normal. No evidence of ulcer of the stomach or duodenum, nor of gall bladder disease was found. The appendix was very much bent upon itself and almost buried in adhesions. The pathological report was chronic and acute appendicitis.

We now congratulated ourselves that with the removal of a definitely diseased appendix, the cause of the trouble had finally been found, but while the patient was still in the hospital convalescing from her operation, vomiting and gastric symptoms again returned.

At this time considerable psychic unrest was noted. Further study along these lines brought out the following story. Her childhood was rather unfortunate in that her mother was a "bad" woman and the patient as a little girl knew of it. She married very young and soon found that she and her husband were not companionable. He was subject to outbursts of temper and was seldom kind or considerate. Since marriage he has continued to masturbate and his sexual habits have been such as to create disgust in his wife, so much so that she is cold to his approaches and finds them repulsive to her. Al-

though she can hardly endure intercourse with her husband, she is sexually active and probably suffers from the want of sexual satisfaction. Owing to the fact that there are four growing children she has felt unwilling to break up her home and leave her husband. Until such time as the children are able to care for themselves, she feels that she must carry on.

With this patient, we are undoubtedly dealing with a gastric neurosis, which passed under the guise of a gastric ulcer and was not at all relieved by the removal of a definitely diseased appendix. It is quite possible that the vomiting may be a physical expression of the disgust which her husband inspires in her. I have seen her from time to time since 1918, and although her condition is somewhat improved, she continues to vomit and to display nervous symptoms. While the social condition continues as it is, she probably cannot be cured.

A married woman in the early thirties had a nervous breakdown several years ago. Since then she has been blue and depressed and complained of palpitation and fatigue. It was difficult for her to take a cheerful attitude toward life, although her husband was kind and she had many things to make her happy. She spoke of her early childhood with much pleasure and felt that she had been carefree until the age of thirteen. At that time when called upon to stand and recite in school she became much confused and found considerable difficulty in getting through her lessons. It was at this age that she first learned that she was an illegitimate child. She was eight years old when her mother emigrated with her to America, and married here. The man whom she was taught to call father always treated her well and although three other children came, she really was his favorite. When she became old enough to understand the truth about her parentage, she became very sensitive, felt that she was being looked at and pointed at, and could no longer mingle freely with her playmates. While under treatment for her nervous condition she talked very frankly about her life and felt considerable relief from so doing. Although the cause of her disturbance cannot, of course, be removed, she may be able to so adjust herself to the situation that her life will be nearly normal.

A young woman twenty-three years of age had spent in bed three out of the previous four years and was regarded by all as a hopeless invalid. Her father was a pronounced alcoholic and had not lived with his family for many years. There were seven brothers and sister, many of whom showed neurotic traits. The patient graduated from High School at the age of nineteen years, when she began to complain of pain around the waist which was so severe that she was unable to

IS PSYCHOTHERAPY WORTH WHILE? REPORT OF ILLUSTRATIVE CASES

By JOSEPH R WISEMAN, A.B., M.D.

SYRACUSE, N. Y.

A MARRIED woman in the middle forties, the mother of several children, who had always enjoyed perfect health, became irritable and developed difficulty in sleeping. She had a fluttering sensation in the epigastrium and awakened in the morning with a number of loose stools. Her mental state became very much depressed and almost everything that happened seemed to produce worry. She worried over her husband, her house, the children, their plans for the future and other things without end.

Physical examination failed to reveal any cause for her symptoms and after several weeks of observation, I assured her that her troubles were psychic in origin and that there must be something that was disturbing her. She maintained that there was nothing on her mind, that she had talked to me freely and frankly, and had not concealed anything. One morning she sent for me, appeared greatly perturbed and said that she had something to confess which she had been unable to bring herself to talk about. She then told a story of unfaithfulness to her husband. Although apparently living a happy married life, she had had a lover for about ten years. She had always realized the sinfulness of her life, but it was only within recent time that psychic disturbances had developed. The patient is a refined woman, who lives in one of the higher planes of society and is thoroughly respected and beloved by all of her friends. She now seemed to feel keenly the false position in which she found herself and maintained her sincere desire to end all wrongdoing and to live only for her husband and family. One might have thought that having reached this point in the analysis of her mental state and having revealed the chief focus of psychic disturbance, the rest of the cure should have been easy. The reverse was just the case.

The patient plunged into deeper depression, sleep became even more difficult, she could not bring herself to smile and threatened suicide. The cause of these symptoms was the terrific mental conflict which had now been precipitated. On the one hand the results of all her moral and religious training showed her duty only too plainly, and to this her finer nature responded. On the other hand, her lover exercised an intense attraction which she was striving with the greatest difficulty to overcome. While the conflict was at its height her mental state was most distressing, but with the passage of weeks her better nature began to assert itself. Her state of mind became calmer, depression slowly gave way to cheerfulness, and finally after the lapse of a number of

months, she seems to be entirely cured. She is now living a normal life and never refers to her former state.

An unmarried woman now in the late thirties has been under observation for eight years. Her life has been a rather unhappy one. As a child she was precocious, hypersensitive and a very poor sleeper. The slightest noise would awaken her. Her mother died when she was twenty-one. During the last few years of her mother's life, there were a number of conflicts between them, in which the patient thought that her mother had treated her quite unjustly. In spite of this, she loved her mother devoutly and after her mother's death, her grief was very intense. For years she could not bear to talk of her mother and it distressed her greatly to visit her grave. She had had a number of love affairs, none of which ended very fortunately for her. She kept company with one young man for several years and was engaged to be married, but he was evidently beneath her station in life, as well as her inferior in character and intelligence, and the engagement was finally broken. After her mother's death she had charge of two younger brothers, whom she brought up and mothered. Her father died about seven years ago. Two years ago a middle-aged man with wife and four children began to pay her attention. She was obliged to meet him frequently in a business way and at first was not in the least interested in his attentions to her. He was, however, very persistent and after a time she began to care a little for him. As the months went on, a love affair developed.

The patient is a woman of refinement and splendid character and has always lived a life beyond reproach, yet she seems unable to resist the attraction of this man, who seems to care so much for her. There has been nothing between them more than a considerable amount of love making, yet both understand the dangerous possibilities. The patient realizes that if the affair became public, she would lose the high esteem in which she has been held and has threatened suicide if this should occur. In spite of this and in spite of her religious training as a devout Catholic, she seems absolutely unable to resist. She has been subjected to a rather exhaustive psycho-analysis and the situation has been thoroughly argued out, yet the affair remained for months in statu quo. Only recently has she shown signs of breaking away from his influence. She sees him less often but it is difficult to predict what the outcome will be.

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GOVERNOR SMITH'S

The annual message of Governor Alfred E. Smith, which appeared in the morning papers on January 7th, is of great interest to physicians. Governor Smith has always stood for scientific medicine and in his message he emphasizes medicine and public health equally with other civic topics, such as taxation, highways, and county affairs.

It is something almost unique for a Governor to take a deep interest in health, and still more so to demonstrate abroad understanding of the sub-

ANNUAL MESSAGE

ject and a grasp of the point of view of the medical men, on whom fall the ultimate responsibility for public health.

It is the desire of all right-thinking men to free our State from quackery and medical fraud. In this great work Governor Smith stands for the best ideals of the medical profession. The extracts from his message, which we are printing on page 76 are of the nature of lay editorials which also reflect the consensus of medical opinion on legislative medical topics.

stand She had headaches, palpitation, weakness and pain along the spine She slept about four hours a night and had not exceeded this for years

The physical examination did not reveal sufficient cause for the various findings and the psychic study brought out the following history

Since childhood she has always had something to worry about She has been intensely religious, went to confession often and felt that she was a great sinner As a child of six, whenever she put on a new dress, she would at once proceed to tear a hole in it Her parents could not understand why she did it and the child steadfastly refused to explain The real reason was that she felt her sins to be so great that she must do penance, she enjoyed the new dress and therefore punished herself by tearing a hole in it She had an insistent idea that if she did not punish herself her mother and grandmother would die This obsession and the underlying thought of doing penance have caused her to perform numerous peculiar actions all her life At no time during the day or when awake at night is her mind free She has no right to enjoy herself or to feel happy Whatever she would like to do she denies herself so that she may do penance She is unable to put down the simplest object for fear that it will be put in the wrong place, and will sometimes spend an hour before she can induce herself to part with it She is afraid of the dark, afraid of various animals, afraid of contagious diseases, and has all kinds of fearful terrifying dreams

It was found that the patient was very suggestible and amenable to treatment along psychotherapeutic lines By a gradual process of explanation, suggestion and re-education remarkable results were obtained Life began to take on a new aspect and the patient commenced to feel that she had a right to be happy Even the character of her dreams changed, and instead of terrifying visions which caused her to jump out of bed with fright, her dream life became pleasant with scenes of fields and flowers predominating An entirely new being seemed to be created and she can now look back upon her former self as almost another personality From a wretched unhappy invalid in bed most of the time, unable to help herself, sleepless, racked by pain and tortured by all manner of abnormal mental processes, she has been transformed into a young woman who is care-free and happy She

has now been holding a clerical position for several years and is able to work steadily, seldom losing a day because of illness

Patients like those I have discussed are not isolated examples which we rarely see They are exceedingly common in the practice of every physician, whatever may be the specialty he has chosen to follow The careful surgeon has come to learn that a certain type of patient who is perhaps only too willing to have an operation, needs psychic study rather than operative skill. The gynecologist too probably sees many of this group, but to the general practitioner and to the internist they come in largest numbers Are we as a profession alive to our opportunities and our responsibilities in treating those who perhaps have bodily symptoms but really are mentally sick?

To do justice to these patients three essentials are needful time, patience and some knowledge of psychological mechanisms If the physician will take the time to tactfully win the confidence of the patient and gradually bring him to tell a full story of his trials, worries, hopes and ambitions, a large step toward the cure of that patient will already have been taken The mere recital to a sympathetic listener of the conflicts that have harried the soul, perhaps the confession of things that have never before passed the lips, give a tremendous sense of relief Some physicians who perhaps have never paid much attention to formal psychology are, nevertheless, such shrewd observers and keen analysts that they are remarkably successful in quickly bringing to the surface the conflicts in the depths of the patient's mind Many of the simpler cases will respond beautifully to common sense explanation and advice For the more deep-seated and more complex neuroses, the services of one who has paid special attention to mental analysis will assuredly be needed, for the task is long and difficult After psychic study, whether long or short, gives us adequate cause for the patient's symptoms, we are then in a position to explain to him just how his neurosis came about in a manner that will carry conviction Following this we have to build up his morale, teach him how to avoid the faulty mental habits which such individuals always show, and to adjust his life to a new mental viewpoint The results will usually repay the time and effort expended

that sociological relief belongs to other groups. One of the greatest burdens of country practice, a generation ago was the necessity that a doctor should furnish relief, not only professional but also sociological. The reason was that when he went to a home, he often found nothing to work with. A health officer, for example, was called at night to see a young woman who had just returned from the city with a bad sore throat which was recognized as obstructive diphtheria. He summoned two doctor friends, and while one assisted in doing a tracheotomy, the other drove his automobile ten miles through a thick fog in order to get the mother to come and care for the patient,—and he had the longest and hardest duty of the three.

Physicians believe that public health nursing societies, tuberculosis committees, and other organizations interested in public health have an essential place in making medical service available to everybody in a community. Their field is not that of the practice of medicine, for that belongs to the doctors. Their field is to provide the auxiliary aids by which doctors may work to the best advantage without assuming sociological burdens.

Civic consciousness in public health matters is of recent origin, and the boundaries between the fields of action of physicians and those of lay organizations have been loosely defined. However, the time has come when those limits can be defined so clearly that serious disputes may be avoided.

The sociological phases of public health are

practiced almost exclusively by organizations, from departments of health down to charitable societies. These have always been largely impersonal, without emotion or feeling. But when they come in contact with individual doctors, they deal with personalities who have deep emotions and are ready to express their feelings,—which are not always pleasant.

One solution of the difficulty lies in organizations of physicians. The machinery is at hand ready to use,—the medical societies of the counties, the State, and the Nation. Physicians recognize their civic duties, and are performing them largely by means of their medical societies. The physicians will retain their individualism and independence unimpaired, but in their relations to lay public health organizations, they will speak by means of their own medical societies. If it is a material issue, the American Medical Association will represent the doctors, if the issue is State-wide, the State Medical Society will act, if it affects a county, the county medical society will act, and if the issue is local, a committee of the county medical society will represent the doctors.

The question of medical paternalism will be solved by the joint action of medical societies and lay organizations. Medical societies are receptive to invitations to cooperate with lay societies in organizing clinics, hospitals, educational campaigns, and all other phases of public health work. If the invitations are extended to the medical societies, their members will provide medical services and the medical information and advice that are needed to carry on the contemplated public health work.

NEGLECTED FIELDS OF PRACTICE

Russell Conwell made a fortune for Temple University by his lecture on "Acres of Diamonds," the burden of which was that around every one of us there lie unnoticed opportunities for acquiring fame and fortune along lines which are useful to our fellows. Hosts of patients whom physicians could help if they would are seeking quack relief because their doctors do not want to bother with them.

Geriatrics is a specialty of increasing importance whose very meaning is strange to many doctors. More people than ever are reaching old age, and larger numbers have the means for paying a doctor for relief from their aches and worries. Children are anxious to do their full duty to their aged parents, and to give comfort to the old folks. A doctor who can please an aged parent and give a querulous octogenarian relief and sleep is a benefactor. Yet how many physicians besides few old family doctors have given serious thought to the diseases of old age?

At the opposite end of the span of life are the children. Pediatrics is a field that is scarcely

touched by the general practitioner. A recent study of a series of mothers of young children (*Long Island Medical Journal*, July, 1925), showed that only now and then did one consult her family doctor, for advice regarding feeding, sleep, recreation, and other conditions affecting her offspring, unless the child was actually sick. Also it was found that few doctors cared to have mothers bring their well children to their offices, and many doctors had even told mothers to go away and forget the children's troubles for they would soon be outgrown. Preventive pediatrics is a neglected field which doctors could cultivate with great benefit to themselves as well as to their patients.

Physiotherapy is a branch of medicine that belongs to physicians and they are beginning to realize their duties to relieve backaches and leg pains, and all the uncomfortable states that quacks promise to ease. It requires money to purchase the necessary apparatus, and time to apply treatments. But patients are satisfied when they leave the office with limber joints.

PATERNALISM IN MEDICINE

Much is said against governmental paternalism. The American spirit upholds the development of originality and initiative by individuals, be they persons, towns, counties, states, or nations. When each individual person or governmental unit develops an independence of action, and fills its own wants, strength of character and efficiency of accomplishment are ensured. There are some problems so big that only the nation can solve them. Other problems are peculiar to the individual person. The nation makes itself almost ridiculous when it attempts to do what a citizen is expected to do for himself.

The American people exhibit two contradictory characteristics,—on the one hand, individualism and personal independence, and on the other, paternalism, or the acceptance of assistance from those more powerful and resourceful than themselves. A great factor in the growth of paternalism is the selfish desire of the individual to get something for nothing.

In their intense desire to give every citizen an equal opportunity to secure and maintain an equal share of life, liberty, and the pursuit of happiness, they petition their higher governmental bodies to provide the means by which those in the next lower class may secure all the advantages enjoyed by those in the most favored group. Then when the assistance is voted, those in the lower groups demand a share of the assistance regardless of their own need of help. If one state gets needed assistance from the national government, then all the other states demand the same dole regardless of their own resources.

While the theory of governmental help to the needy is commendable, yet in practice it bears the undesirable fruits of "paternalism," "special privileges," and "pauperism." These and other strong terms are used by writers and speakers in calling attention to perversions of the intentions of lawmakers and governmental administrators.

Dr Dwyer, Professor of Economics at the Vanderbilt University, speaking at the dinner of the Southern Society in New York City recently, bemoaned the paternalism of the Federal Government in its interference with the internal affairs of the States. Judge Guy L. Fake, former judge of the Rutherford (N. J.) District Court, writing in the "New York University Alumnus," expresses pointed thoughts regarding some unwise governmental inroads into medical fields when he says:

"Among the inspiring beneficences which we now seem to enjoy at public expense, and which had no place in reason or prophecy a decade ago, might be mentioned our public nurses, who go about doing good, treating and advising folk as though the folk were in forma pauperis, none of which folk actually are paupers, however, but merely laboring under a government induced de-

lusion of helplessness, and foolishly believing they are getting something in the way of service for nothing. In one case, the wife of a very wealthy man received personal instruction on the care and nursing of her baby, for which she paid only in a pro tanto loss of self respect, no coin of the realm being taken from her by the government nurse for such invaluable services as were rendered. These nurses, by the way, were foisted upon our community a long way from home, through an Act of Congress at Washington, under which the State legislature felt the necessity of choosing federal aid bribe money, rather than suffer the anguish which would be produced by the thought that our federal tax money would be spent by some other bribe-accepting state if we did not divert some of it to our own coffers, and so here we are in a town where we have heretofore had one of the lowest death rates in the whole glorious union, where we have today no poor problem, no foreign population and no factories or factory problems, accepting public nurses into our beautiful well appointed private homes as though we were beggars at the public crib, and all our uplifters joyously join in a halleluiah chorus of praise and thanksgiving for this so-called free service."

When thoughtful laymen give expression to these views, physicians may properly state the basic principles on which to mold their attitudes toward governmental medical agencies.

The present system of distribution of medical service to the people is a natural evolution, and is founded on the desire of both the people and the doctors. It is essentially individualistic in distinction from communal and paternal. Each individual seeks to choose one doctor to whom he may confide his pains and disabilities. Even a big city hospital assigns a case to a particular doctor, and the patient goes away talking about "my" hospital doctor. Individualism in medicine is here to stay, and all attempts to substitute state medicine in any form are contrary to historical precedent and modern custom.

But what about those persons who are unable to employ a doctor or provide the means for carrying out the doctor's advice? It is for these people that sociologists have proposed state medicine, health centers, public health nurses, child welfare clinics, and other paternal means of giving medical treatment to the needy. This relief consists of two elements:

- 1 Professional advice and treatment

- 2 Sociological assistance in the form of money, nursing, hospitalization, education, and other means whereby the patients may be enabled to follow the medical advice.

Physicians have always been willing to contribute their professional services to the needy without hope of fee or reward, but they believe

treatment or cure, may be disciplined by this committee

This committee likewise has power to adjust controversies between physicians and to arbitrate controversies between physicians and third parties should the parties to such controversy agree to such arbitration. It is felt that many cases against physicians for alleged malpractice that now are brought in the courts may ultimately be disposed of promptly, fairly and economically through the use of this power of arbitration, and as this committee gains the confidence of the profession and the public, we hope to find a very material reduction in the number of suits brought against physicians.

Thus, the first step in procuring legal security to the profession through self government will have been accomplished, and the succeeding steps in the proper legislative program to restrain unlicensed practitioners can be taken with confidence of public support and successful result.

Heretofore the prosecution of unlicensed practitioners has been at the instance of the medical profession and under the present law the profession is entitled to receive the fines and penalties that are imposed for violations of the act. This practice has made it appear that the contest in court in the prosecution of the unlicensed practitioners was one between the profession on the one side and the individual violator on the other. Whereas the underlying theory of criminal prosecution is that it must be in the interests of the public and that the party plaintiff must be the people of the State of New York. Heretofore evidence for such prosecutions has been gathered by the county societies through investigators employed by them. This has placed an expensive burden upon such societies in the performance of general police duty. The statement of this condition under the present law is sufficient to condemn it. The bill, which has earned the support of the Society contemplates a different procedure.

The Board of Regents, acting through the Board of Medical Examiners, are authorized to employ not less than five or more than seven inspectors, whose duty will be the investigation of cases of unlawful practitioners. The Attorney-General of the state will prosecute the offenders, except in counties having a population of half a million or more, where the district attorney will act. The delay incident to the present procedure of prosecution by indictment of a grand jury is obviated by conferring jurisdiction upon the courts of special sessions which may act without a grand jury indictment and upon an information of the Attorney-General or district attorney and where summary trial and conviction can be had without delay.

The title of "doctor," which is now greatly abused by chiropractors, chiropodists and others upon whom it has not been lawfully conferred, when used "in the conduct of any occupation or

profession involving or pertaining to the public health or treatment or cure of any human disease, pain, deformity or physical condition" is made a misdemeanor, unless the person is authorized by law to use the title. The enforcement of this one provision would remove from thousands of signs that deceptive title. The rules of evidence against offenders are greatly simplified by making certain acts presumptive evidence, as the use of a person's name on a sign is presumptive evidence that the person whose name is so used is responsible for the use without having to prove who painted the sign and who gave the order for the same. In this way there can be removed many of the alluring advertisements of the unlicensed practitioners, for it is through these that their trade is carried on.

As the law presumes that every licensed doctor possesses reasonable skill and in the treatment of a case has done his duty, the converse should be presumed in the case of an unlicensed practitioner. So that a provision is made in the bill whereby a person who has been injured as a result of a treatment given by an unlicensed practitioner does not affirmatively have to prove negligence, but may rely upon proof of the fact that he suffered such injury and that the person inflicting it in the course of a treatment, was not a licensed practitioner. The creation of this rule would lay a heavy burden of legal responsibility upon those who practice without a license and would make the proof of their liability simple and inexpensive.

In order that under this new bill we should have a fresh start with a clear list of names of those who are lawfully licensed to practice, the bill requires one registration on the part of those now practicing, the names of those that are hereafter admitted to practice will be added as they register and the names of those whose practice is terminated by death will be reported to the Regents through the Board of Health. The Department of Education expresses doubt as to the adequacy of this system of registration and favors an annual registration. Only experience under the act will enable us to tell ultimately whether their fears are justified. The registration, however, will be the first complete roll call of the profession since 1880 and is imperatively necessary. The profession should have an open mind on whether or not, in the light of experience as it is gathered in the future under this bill, further registration may be necessary.

Harmonious co-operation between the profession, the Regents, the Department of Health, the Attorney-General's office and the courts will be imperatively needed to make the operation of this bill, if enacted into law, satisfactory. The bill has received the support of these different agencies in its present form and with adequate effort to procure its passage should become a law this year.

and happy faces, and they come back in a day or two for more treatment. Those doctors who practice physiotherapy seriously have full waiting-rooms. Doctors in general practice should make use of physiotherapy for the sake of the honor of their profession, if for no other reason.

Especially should hospitals provide the equipment for giving treatments in physiotherapy; and medical schools should give instruction in the various methods which any general practitioner can apply.

Psychiatry is a vast field that doctors neglect. The world is full of neurasthenics who seek in

vain for mental therapy from general practitioners, and many find satisfaction in the mental suggestions of Christian Science readers. The State Hospitals have many cases whose insanity could have been prevented by the methods of applied psychology which general practitioners could readily learn to apply.

The people look to their family doctors to advise them in all medical matters. The methods of relief and prevention are available to all doctors. It is the duty of physicians to cover the neglected fields of practice in which they could readily become proficient.

"PTOMAINES" POISONING

The State Department of Health frequently receives death certificates in which the cause of death is given as "ptomaine" poisoning. While this might have been accepted as a satisfactory cause of death a generation ago, it is no longer either scientific or acceptable. Investigation of deaths reported as due to ptomaine poisoning show that the cases have usually died after showing severe gastro-intestinal symptoms from causes which the physicians have not determined accurately. It is an old observation that "spoiled" food, especially if it had been canned, sometimes causes severe vomiting and diarrhoea, and in these days a history of the patient having eaten old canned food may usually be obtained and may be utilized as a convenient excuse for a meaningless diagnosis.

When bacteriology was a young science, attempts were made to identify the poisonous substances in spoiled food with apparent success, and the theory of ptomaines and leucomaines was developed. Gould's Medical Dictionary, 1891 edition, defines ptomaines as "putrefactive alkaloids," and says that the word is derived from the Greek word "ptoma," a corpse. It defines leucomaines as "basic substances found in living tissues either as the products of fermentative changes or of retrograde metamorphosis." It derives the word from the Greek "leucoma,"—white of egg. The principal difference between the two classes of substances was that ptomaines were formed in dead bodies and leucomaines in the living. Ptomaines were supposed to be the more poisonous of the two substances, but the importance ascribed to leucomaines is shown by the following quotation from the 1891 Edition of Gould's Dictionary:

"The aqueous extract from vapors exhaled by dogs has been found to cause death within 24 hours when injected into the veins of other animals. The same violent poison is said to

produce pulmonary phthisis in confined air by continuous influence."

The idea of a fundamental difference in the poisonous qualities of living and dead tissues is also shown by the division of pathogenic bacteria into two classes, those growing outside of the body, and those growing in the living flesh. Gould defines *sapraemia* as "A febrile condition due to introduction into the blood of the chemical products of putrefaction," and *septicaemia* as "an infective disease caused by the absorption of septic products." A physician who studied medicine during the decade of the nineties absorbed these conceptions and adopted them as a part of the permanent equipment of his brain from which they could be displaced only by considerable study.

The decade and a half following 1891 witnessed a great clarification and amplification of the former knowledge of infective processes. Accurate methods of culturing micro-organisms were discovered and the practical theory of susceptibility and immunity was formulated, the specific nature of fatal gastro-intestinal infections was demonstrated, the nature of botulism was shown in great detail, the relation of para-typhoid diseases in cattle and mice to gastro-intestinal forms of human diseases was shown, and the relation of human carriers to many acute gastro-intestinal disturbances was proven. It was also demonstrated that the common process of putrefaction had little to do with human disease, and the very word *ptomaine* fell into almost complete disuse in scientific circles, just as the word *typhilitis* became almost forgotten when the term *appendicitis* took its place.

The older health officers who have taken courses of instruction under the New York State Department of Health know the long hours and close thought spent in acquiring the bacteriological conceptions that have been de-

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operation depends not upon interrupting a direct afferent path from cardiac plexus to central nervous system, as has been assumed, but upon the interruption of autonomic reflexes. Complete cervico-upper-thoracic sympathectomy abolishes the pain, but should be employed only in cases in which life is really insupportable even under the best medical care. Removal of the superior cervical sympathetic ganglion does not render angina in the motor distribution of the other ganglia impossible. Its removal can be justified only on the basis of some resultant alteration in the coronary vessels or aorta which are innervated by it through the superior cardiac nerve.

Etiology of High Blood Pressure—In an article on this subject in the *Deutsche medizinische Wochenschrift* of December 11, 1925, Fleischmann discusses essential hypertension, secondary hypertension and arteriosclerosis from the various etiological angles. In speaking of the influence of race and diet, he mentions the Kirghis who live on mutton and kumyss, consuming daily enormous quantity of both (kumyss also contains 3 to 6 per cent of alcohol). They suffer considerably from the disease group comprising gout, obesity, and hypertension. The unsatisfactory state of our present knowledge of high blood pressure may be due to the fact that we do not direct our study on the comparatively young. Men over 40 have probably suffered for a long time, so that with age it becomes increasingly difficult to appraise the various causal elements. It is possible to isolate two of these, first the general group of gout, diabetes, obesity, and hypertension, and second the psychic factor. Those neurotic subjects with great vasolability constantly undergo increase of tension from the sum of the emotional factors, as grief, worry, excitement, chagrin, and anxiety over money matters, and the incidence of hypertension in this type of individual is a matter of every-day experience. In regard to the association of high tension with arteriosclerosis it is the first which is the cause, the latter being the effect. The triple association of hypertension, arteriosclerosis, and contracted kidneys, as seen in its most typical form in lead poisoning, is obscure and by exclusion the author would attribute it to a neurosis of the autonomous nervous system, which inferentially is present in plumbism. Fleischmann's speculations are suggestive in a way, but they lead to little that is of practical value in the way of prevention or correction of high blood pressure.

A Remedy for High Blood Pressure—Blumenthal describes in the *Muenchener medizinische Wochenschrift* of November 6, 1925, a formula for the treatment of essential hypertonia, the composition of which is as follows, sodium chlor-

ide, 6 parts, sodium nitrite, 20 to 40 parts, sodium phosphate, 3.6, potassium phosphate, 2, and water to make 1,000 parts. This may be injected subcutaneously or intravenously but may also be taken internally. Injections should be made about every other day and apparently should be kept up as long as there are any disagreeable subjective symptoms. There is a sharp fall of blood pressure after an injection but it is not maintained for more than a few hours. The subjective benefit on the other hand will be maintained for one or two days. This consists in the relief of headache, vertigo, shortness of breath, and other disagreeable symptoms. Patients who have taken the treatment for several weeks speak enthusiastically of their improved condition. The benefit must of course be due essentially to the nitrate, yet this drug of itself will not produce the same lasting effects.

Irradiation of the Spleen in Bronchial Asthma—In an article on this subject, published in the *Archives of Internal Medicine* for November, 1925 (xxxvi, 5), George L. Waldbott discusses first the rationale of the method. He presents a review of the literature suggesting that there is a definite relationship of the lymphatic system, of which the spleen is a part, to anaphylaxis. Hektoen has shown that the removal of the spleen reduces the power of an animal to produce antibodies, whereas irradiation of the spleen seems to increase the antibody titer of the blood. On the bases of these results, the author undertook clinical studies on a small number of asthma patients. Under roentgen-ray treatment of the spleen most of these patients improved, and in one case the results were particularly striking. This patient, a boy of 6½ years, who gave positive skin tests to milk, casein, whole egg, and wheat, received one roentgen-ray treatment of the spleen. The dosage administered was 6 minutes, 5 milliamperes, 4 mm aluminum, 88 kilowatts, 10 inches skin target distance. In addition the patient was kept upon an anti-anaphylactic diet for a period of two weeks. The result was entire relief from the clinical manifestations of the disease during a period of eight months. The blood calcium rose slightly, the eosinophile cell count decreased, and the skin tests became negative. Bilateral root infiltration, as shown by the roentgenograms, did not change on repeated examinations after the treatment. Two German writers, F. M. Groedel and H. Lørsen, report that in 71 cases of bronchial asthma in which roentgen-ray treatment of the spleen was resorted to, the results were questionable in 10 cases, negative in 7, good in 15, very good in 12, and splendid in 27. The subject is one which calls for further investigation.

Ultraviolet Light and the Antiscorbutic Vitamin—Investigations have been made by Philip Eggleton and Leslie J Harris (*British Medical Journal*, November 28, 1925, ii, 3387) of the effect of mercury vapor or other light (a) on the synthesis of vitamin C in the plant, (b) on animals kept on a scorbutic diet, (c) on animals already with scurvy, (d) on rations with partly destroyed vitamin C, and (e) on rations rich in vitamin C (a) Light was found not necessary for the synthesis of this vitamin in germinating grain, contrary to the former supposition and in distinction from vitamin A, which is said to require light for its formation in the plant (b) The direct exposure of an animal on a scorbutic diet to ultraviolet light did not appreciably retard the onset of scurvy (c) Ultraviolet light appeared to have no curative action on a scorbutic animal (d) Cabbage in which the C vitamin had been largely destroyed by heat was exposed to the mercury vapor lamp and tested for regeneration of the vitamin, with doubtful results (e) Exposure to ultraviolet light of an infant's food already rich in vitamin C gave no evidence of an augmented antiscorbutic value. These results indicate that while the effects of a deficiency of fat-soluble vitamin in, for example, an infant's diet can be remedied to some extent by exposing the infant (or the food) to sunlight, if scurvy is to be prevented there must be an adequate amount of vitamin C in the diet

The Jaensch Visual Phenomenon.—Karger discusses from the pediatric viewpoint this recent discovery which thus far has received but slight consideration. The constitutional peculiarity is as follows, a certain percentage of school boys in the prepubertal years, when asked to gaze fixedly at various figures held against a black background, are found to be able, after the removal of the figures, still to perceive them in their original locality on the same background. They describe them in their original detail and satisfy the experimenters that neither memory nor imagination plays any rôle in the phenomenon. Jaensch terms the visual object a "subjective-optical gazing image," which is wholly unlike the ordinary after-image. The discoverer goes much further than the mere visual anomaly for he brings it into necessary association with a certain physico-psychical constitution which he terms the "eidetic." The children who show this peculiarity are of the dreamer type and apparently this persistence of images stands in some relationship with intellectual peculiarities such as the persistence of ideas with a resulting unresponsiveness to new mental impres-

sions. Moreover these subjects show endocrine peculiarities and incline to hyperthyroidism or to tetany, there being two opposed clinical types. The phenomenon tends to disappear spontaneously and rapidly at puberty and Jaensch even claims that by giving thyroidin or calcium lactate—according to the type of patient—he can cause the premature disappearance of the phenomenon. Karger, who has gone over the same ground as Jaensch, regards the peculiarity as a remarkable discovery in itself, but as for standing in any necessary association with mental or physical peculiarities he remains wholly skeptical. In no case was he able to modify the phenomenon by the administration of drugs—*Klinische Wochenschrift*, November 19, 1925

The Sugar Treatment of Epilepsy—Wladyczko, a neurologist of Warsaw, refers to the claim that in epilepsy there is a lessened content of blood sugar both under ordinary conditions and under the provocative exhibition of extra diet sugar. He believes that if this lowered sugar content is not the leading cause of the seizures it is at least a contributory factor. Apparently, however, he would not exhibit the sugar without formal blood control, but with reduced content he would give sugar even if the patient were under treatment with the ordinary drugs. He mentions 23 cases in which he gave the treatment with improved spacing of the fits and five more in which the degree of improvement was striking. Sugar may be given in any way so long as the patient receives at least 20 grams daily—in tablets, syrup, or even in the form of the sweet fruits—figs, dates, etc. Tests should show that the hypoglycemia is brought up to the normal by the ingested sugar—*La Presse Médicale*, November 7, 1925

The Oligodynamic Action of Metals—Voight discusses the paradoxical property through which apparently insoluble metals can exert a dynamic action on microorganisms and tissue cells. The data are sometimes cited as a document for the action of "infinitesimals" in medicine. We know that not all metals possess this action. It is seen in silver and mercury but not in gold, and any question of the colloidal state of matter can be ruled out of consideration. The only valid hypothesis involves the belief that in some metals a minute fraction undergoes a change and becomes soluble. The author made some experiments by treating a drop of mercury with gelatin and formol with the apparent result that a definite although very minute amount of the metal passed into a state of solution—*Klinische Wochenschrift*, December 10, 1925



GOVERNOR'S MESSAGE



GOVERNOR ALFRED E SMITH'S OPINIONS REGARDING LEGISLATIVE MEDICAL TOPICS

Extracts From His Annual Message, January 6, 1926

ILLEGAL PRACTICE OF MEDICINE

I renew the recommendation of a year ago that careful consideration be given to the protection of the people of the State from unlicensed and unqualified persons practicing medicine. The co-operation of the medical profession is an essential factor in the protection of the public health, as well as in the care of the sick. A very large part of modern public health is urging people to get the advice of their physicians before serious and perhaps incurable conditions have developed. Such effort comes to naught if unqualified persons are allowed to hold themselves out as physicians.

The subject is a difficult one, but the State of New York should take the lead in establishing high standards of medical practice and providing a practicable plan for their enforcement. It is a matter of justice to qualified physicians and of protection to the public.

CRIPPLED CHILDREN

Last year I called the attention of the Legislature to the necessity of better provision for the care and treatment of crippled children. The present machinery available for this purpose consists of one orthopedic surgeon and thirteen nurses in the State Department of Health and the New York State Orthopedic Hospital for Children at West Haverstraw, for which funds have been made available from the fifty-million-dollar bond issue for increased bed capacity and improvement to the building.

A law was enacted by the last Legislature providing for co-operation between the Departments of Health, Education, Labor and Charities for the care, treatment, education and rehabilitation of cripples. The powers and responsibilities conferred by this law are broad enough, but the small sums granted by the Legislature to the Education and Health Departments were entirely inadequate for carrying them out.

A large part of the work for crippled children is being carried on in the rural districts and smaller cities by private contributions from individuals and fraternal and social organizations.

When it is recalled that there are not less than 12,000 crippled children and young adults in the State scattered over a very wide area, many of whom are most difficult to reach, it must be obvious that the machinery provided for rehabilitating this class of future citizens—most of whom by proper care, treatment and education may be re-

stored to lives of usefulness and happiness—is by no means adequate. Under the appropriation made to the Department of Education a tabulation and analysis of a large number of cripples is now being made. It is to be hoped that the knowledge thus afforded of the location and individual needs of these unfortunates may form a basis for legislative action, including financial provision for their proper care, treatment, education and training.

PUBLIC HEALTH ACTIVITIES

The State of New York unquestionably leads the country in human welfare activities and has reason to be proud of them. To public health, institutional care, conditions of employment, education, housing, recreation, child welfare, and the rehabilitation of the unfortunate, we have given of our best and should continue to do so in full measure.

One of the great functions of government is the preservation of public health. Our State Health Department has established the slogan, "Within certain natural limitations public health is purchasable." No expenditure of public funds brings greater return to the State and its people than the money used for the promotion of the public health. Prevention of disease is cheaper than its cure or long extended care and support.

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Our public health laboratories have been of great assistance in the prevention of disease and are an index of the character and extent of the whole field of public health work throughout the State. There are now 106 approved laboratories in various parts of the State. Since 1923, when the first appropriation was granted for State aid to local public health laboratories, the amounts expended by the State to meet local appropriations have increased yearly and the standards of work have steadily advanced. It is to be hoped that many other localities of the State will take advantage of State aid and increase this very necessary service.

COUNTY HEALTH ADMINISTRATION

I feel compelled to call your attention to a weakness in our present health administration, under the law which has been in existence since the reorganization of the State Health Department in 1914. The present unit of local health administration is entirely too small for efficient

work. It is carried on by general practitioners of medicine in small localities, who, with totally inadequate compensation, are endeavoring to the best of their ability, and with the comparatively short time which they can devote to public health work, to discharge the duties required of them by the Public Health law, and it is due to the unselfish devotion of the great majority of local health officers and their cooperation with the State health authorities that so much has been accomplished.

The unit for local public health work should be the county, with a full-time qualified county health officer who should be made responsible for the conduct of local health matters within his jurisdiction, with only such supervision as the State may be required to give in an advisory capacity. Such an organization has been possible under the law for several years, yet only one county—namely, Cattaraugus—has seen fit to take advantage of it, and with the very best results in promoting the physical welfare of the inhabitants. Other States have made notable progress in county health administration and there are now some 250 such organizations throughout the country.

It should also be noted that under the act providing State aid for rural counties, counties which establish a county health organization may receive from the State one-half of the amount appropriated by the county boards. This need not be an expensive service to the local community, and it is to be hoped that in the near future more counties will avail themselves of the provisions of these two laws which mean so much to the promotion of public health.

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the patients on parole, leaving little or no time for the real preventive work. A Director of Social Service should be made a member of the staff of the State Hospital Commission, and, later, of the State Mental Hygiene Department, in order that this work may be properly coordinated.

MENTALLY DEFECTIVE CHILDREN

As is now generally recognized, the greatest opportunity for forestalling mental ills lies in work for children. The State is already giving financial aid to localities in the operation of special classes for backward children in the public schools of the State. As yet, however, the larger part of the backward children who need the training that a special class can give them are not receiving it because many communities are entirely without special classes, and most others have not organized a sufficient number of them. In the even more important work of skilled treatment for the so-called "problem children," who are emotionally disturbed, our public schools are doing very little.

The time has come, I believe, to organize in the Department of Education a special Bureau of Mental Hygiene headed by a competent psychiatrist, where responsibility may be centered for organizing mental hygiene work for all types of children with mental difficulties. Such a bureau should cooperate closely with the State mental hygiene agencies, and take advantage of all the facilities, clinical and otherwise, which they can place at the disposal of the public schools.

OCCUPATIONAL DISEASES

As the law and court decisions now stand, compensation can be awarded for many of the diseases of employes due to occupation. For some others it cannot. There is an element of injustice in this situation. There is no fundamental reason of equity for any such distinction between disabilities due to diseases which are caused by occupation. The line now drawn seems to be largely arbitrary so far as principle is concerned and only the result of legislative compromising.

Equal treatment under the law is the proper remedy for this situation. On general principles all diseases arising out of and in the course of employment should be made compensable. There is good precedent for this all-inclusive remedy in the laws of several of the other States which have had it for a number of years.

There is no reason to believe that such an extension of coverage would involve any considerable increase in the total costs of compensation. The more common occupational diseases are now specifically covered in our law or have been held

compensable within the definition of accidental injuries, so that to cover all diseases due to occupation, as all accidental injuries due to occupation are covered, would not entail any undue burden on industry.

LOSS OF VISION DECISIONS

A recent decision of the Appellate Division has completely overturned the practice that prevailed since the Workmen's Compensation law was enacted with reference to the test to be applied in determining the percentage of loss of vision. The result is that there is confusion and uncertainty as to just what element should be taken into consideration in determining the percentage of loss of vision. Moreover, the decision of the Appellate Division, if carried to its logical conclusion, will result in less compensation for eye injuries than was intended when the schedule loss of 160 weeks' compensation for the loss of an eye was enacted.

To remedy this situation the Legislature should prescribe a standard method to be adopted in disposing of eye injuries or else confer power on the Industrial Board to do so and in conformity with such test should amend the law so as to provide for adequate compensation to the victims of such accidents.

BOVINE TUBERCULOSIS

Our Department of Farms and Markets is concerned not alone with helpful suggestions to the farmer but in the exercise of what might be called the police power for the eradication of plant and animal diseases. Chief among all is the eradication of bovine tuberculosis. I am informed by the Commissioner of Farms and Markets that in 1925 the greatest progress in the elimination of this disease in the herds of our State has been attained, surpassing anything accomplished in any year since the work has been in progress. During the past twelve months over 50,000 herds containing nearly 600,000 cattle have been subjected to a tuberculin test and all tuberculous animals eliminated. Considerably more than one-third of the townships of the State have been completely tested.

It is gratifying to note the advance made in a few years when the reputation of New York cattle had fallen so low that many of the States of the country had quarantined against us. In my message of last year I stated that in my opinion our low death rate was due to the care exercised by the State in ridding the herds of the State of tubercular cattle, and the work must be carried on as speedily as the department is able to do it properly.



State Department of Health



One Death From Rabies, Another From Transverse Myelitis Following Pasteur Treatment

During the early part of 1925 rabies in dogs became prevalent in Westchester county. Several persons were bitten and took the Pasteur treatment. One of these, a boy of five, was severely bitten on the face on March 26. The wound was treated with iodine and alcohol and eight sutures were taken. Pasteur treatment was begun on the next day, a total of eighteen injections being given. On April 12 this child developed dimness of vision, difficulty in swallowing, drowsiness and drooling. The temperature was 100 degrees F and the pulse, 140. He died from rabies at the Willard Parker Hospital, New York City, on April 14.

A death from transverse myelitis in a man 57 years old was reported in October. On May 22nd, the patient had been bitten on the hand by a rabid dog. The wounds were cauterized (?) and Pasteur treatment was begun on May 26th. A total of fourteen treatments had been given up to June 10 when a right-sided paralysis appeared, involving the leg and extending to the nipple line. Within a few hours the left side was similarly involved, with accompanying paralysis of the sphincter muscles of bladder and rectum. The paralytic symptoms lessened and the patient was encouraged to sit up in a wheel chair.

On August 15 areas of breaking down tissue developed over the hips and sacrum. The necrotic areas were deep seated and were covered with apparently normal but superficial layers of muscle and skin. Upon operation necrotic masses about two or three inches in diameter were removed. Later there were localized gangrenous areas on the feet and legs.

The cause of death was given as transverse myelitis of the lower extremities, contributing cause, toxemia from gangrene. In this case there was no known or probable history of syphilis and the urine was sugar free. Alcoholism could be ruled out and the patient received no blows or falls during the course of treatment.

Serum Therapy in Erysipelas

Older clinicians are divided in opinion as to the value of anti-streptococcus serum in erysipelas, into those advocating strongly its use in this affection and those who have not seen much beneficial effect from it. It seems of interest in this connection to draw attention to a recent series of articles by Birkhaug on the biology of the streptococcus erysipelatis*. This author amplifies the findings

of other workers, as regards the specific agglutination and opsonin reactions of streptococci isolated from cases of erysipelas, by demonstrating that an immune erysipelas rabbit serum has a specific and definite neutralizing and protective action in these animals against the injurious effect of the streptococcus erysipelatis.

Clinical application of these findings has been made by Birkhaug. The serum, when injected intracutaneously into the erysipelas rash of a patient, causes soon afterwards a fading of the lesion, with disappearance of the edema and tenderness. It is claimed that the action of the serum in this respect was specific. It is stated further that promising results were also obtained with intravenous and intramuscular administration of large doses of the immune serum in several cases.

Definite results in the practical applications of serum therapy will be needed in more cases for confirmation, especially in view of past experience with the use of anti-streptococcus serum in the streptococcus infections, which are predominantly parasitic. The observations of Dr. Birkhaug, are, however, extremely interesting and suggestive.

Botulism or Strychnine Poisoning

Recently there came to the attention of the Department the death of a three year old girl from botulism. The case was investigated with interesting results.

It was found that the girl was dead when the physician arrived, her brother who had similar symptoms was in convulsions but recovered in about three days, treatment consisting of a hot bath, morphine, an emetic and enemata later bromide and chloral. The evacuations following the enemata contained a large amount of undigested corn and a reddish substance believed to be salmon. According to report the corn had been eaten green. The report did not state whether or not other members of the family had partaken of the same food as the children.

It was reported that the mother (who was away at the time of the investigation) had stated that the children had been playing with strychnine tablets. Although the grandmother denied that the children had found any such tablets the nurse stated that when she first saw the girl immediately after the onset of the illness consisting of convulsions, the child was absolutely rigid with slight opisthotonos. When placed in a hot bath she had twitching of the hands, legs and feet. She died fifteen to twenty minutes later.

From the history and the description of the symptoms—the case was not one of botulism but resembled strychnine poisoning.

* Birkhaug, K. E. Bulletin of the Johns Hopkins Hospital, 1925, 36, 134.
Bulletin of the Johns Hopkins Hospital 1925, 37, 35, 307.



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BOOK REVIEWS



RHEUMATIC HEART DISEASE. By CAREY F. COOMBS, M.D., F.R.C.P., London. Introduction by F. J. POYN-
TON, M.D., F.R.C.P., London. Numerous original
plates and illustrations. William Wood and Co,
N. Y., 1924. Price, \$4.50.

Coombs' "Rheumatic Heart Disease" is a noteworthy monograph on a subject of tremendous importance. He believes the diplo-streptococcus of Poynton to be the causative virus, but fails to clearly differentiate it from the streptococcus anhemolyticus of Schottmuller, now almost universally believed to be the cause of most cases of subacute bacterial endocarditis.

The thorough discussion of the pathology and symptomatology of the various manifestations of the disease as it affects the heart must be read to be appreciated. Valuable data for the proper prognosis is given. Treatment both prophylactic and curative is thoroughly discussed—stress being laid on the importance of rest and later graded activity with constant supervision and guidance.

The book is a distinct contribution to the further understanding of this most formidable disease, and can be highly recommended to the general practitioner. Its style is pleasing and is written by a master of his subject.
MEYER A. RABINOWITZ

VAGOTONIES, SYMPATHICOTONIES, NEUROTONIES. Les Etats de Desequilibre du Systeme Nerveux Organo-Vegetatif. By Dr A. C. GUILLAUME. Octavo of 281 pages. Paris, Masson et Cie, 1925. Paper, 14 fr.

This work includes a comprehensive survey of the etiology, clinical aspects and treatment of the disturbances of the vegetative nervous system. In his work, the author has largely followed the well-known classification of Eppinger and Hess, which he has modified somewhat to suit his views. The close relation of the neuroses to disturbances of vagal and sympathetic tone is well exemplified.
FREDERIC DAMRAU

DISEASES OF THE EAR, NOSE AND THROAT. By HAROLD HAYS, M.A., M.D., F.A.C.S. 495 Half-Tone and Line Engravings, 55 Full Page Plates. F. A. Davis Co., Philadelphia, 1925. Price, \$10.00 net.

Among the recent text-books on diseases of the ear, nose and throat, this one by Dr Hays may be said to have filled a gap for the student and general practitioner. The medical aspect of this specialty is sufficiently emphasized and just enough technique is supplied to acquaint the reader with some of the commoner surgical procedures in oto-laryngology. Such was the aim of the author, and it has been fully carried out.

More than half the book is devoted to Otolaryngology. A special chapter on Diphtheria is written by the noted otolaryngologist, Dr Louis Fischer of New York. Dr Isaac Meigs of Los Angeles has written the chapter on the diagnosis of the upper air passages and Oesophagus by the laryngoscope. The text is concluded by a chapter on the development of the upper air passages and Oesophagus by birth and infancy. There are no less than fifty-five full page plates, nearly all of which are original. One rarely sees a text-book with such during colored plates. The plates on drum membrane and infarct are highly instructive.

The book in many instances does not lend itself to the same degree of emphasis on the treatment as given him the best results in practice. There is too much manipulation in cases of foreign bodies in the external canal. In at least 99 per cent of cases it is all that is necessary, except in the emotions that swell, as peas and beans. The

legal importance of previous attempts at removal by others should not be forgotten.

The chapter on Progressive Deafness has food for the specialist and student.

The value of transfusion in sinus thrombosis, septic ear cases and in cases of double mastoiditis with suspicion of sinus thrombosis cannot be too strongly emphasized.

The use of autogenous vaccines is advocated in chronic nasal catarrh with no pathology. The majority of men find very little benefit from their use.

The section on chronically diseased tonsils is well written, especially examination and indications for operation. Palpation of tonsil region is advocated. The author calls attention to the presence of encapsulated abscesses beneath the capsule of the tonsil. They appear as yellowish areas which may be situated anywhere in the tonsil parenchyma and has nothing to do with cryptic pathology. This is always an indication for operation.

B. H. ABRAHAM

LES ARYTHMIES EN CLINIQUE PAR A. CLERC, PROFESSEUR AGREGÉ A LA FACULTE DE MEDECINE. MEDECIN DE L'HOPITAL LARIBOISIERE. Preface du Pr H. VAQUEZ. Masson et Cie, Editeurs. Paris 1925. 34 fr.

In this volume the author has given a very accurate description of all the cardiac arrhythmias, but the special value of the book lies in his correlation of experimental and graphic study of these disturbances, with the clinical features.

The presentation of each cardiac irregularity begins with graphic studies in which numerous curves of the radial pulse, apex beat, venous pulse, polygrams and electrocardiograms are given and described. Then follow the testimony of experimentation, the pathological anatomy and the mechanism of each arrhythmia and finally a clinical study of the etiology, symptomatology, prognosis and differential diagnosis of each disturbance. There are also special chapters devoted to descriptions of the various graphic methods of study of the heart beat, to the pharmacology of the drugs used in heart disease and to the treatment of the cardiac arrhythmias.

The author draws freely from the best work of French, German, English and American cardiologists, especially from Sir Thomas Lewis for his description of the arrhythmias, but the feature of the work that makes it a real contribution to cardiology is the systematic presentation of the wealth of careful clinical observation that it contains.

EDWIN P. MAYNARD, JR.

AN INTRODUCTION TO THE MIND IN HEALTH AND DISEASE. For Students and General Practitioners Interested in Mental Work. By WADDELOW SMITH, F.R.C.S. (Eng.), Deputy Medical Superintendent of the City Mental Hospital, Nottingham. William Wood and Co., New York, 1925. Price, \$4.00.

The author ranges over a wide field, or fields, and touches the high spots here and there. He discusses neurology, including anatomy, physiology, histology and embryology of the nervous system, psychology, endocrinology, psychiatry, psychoanalysis, feeble-mindedness and sexual anomalies. To neurasthenia he devotes one page, to hysteria and war neuroses, two and one half pages. The book is made up largely of definitions, which is about all that the space will permit of. As an introduction it is too brief and condensed. It might serve for a hasty review of the subjects touched upon.

IRA O. TRACY

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PROSTATIC OBSTRUCTIONS IN PATIENTS OVER 50 YEARS OF AGE

By DAVID M DAVIS, M D,
ROCHESTER, N Y

THE purpose of this paper is to present the subject of prostatic obstructions in men of advanced years, not from the point of view of surgical treatment only, but considering the condition as it arises in daily medical practice, with regard to the diagnosis, treatment, and prognosis at all stages of its progress

In the early stages of a prostatic obstruction, the clinical picture usually embraces little more than the single symptom of frequency of urination. This symptom is indeed so common that even the laity are accustomed to regard getting up once or twice at night as a necessary evil, after passing a certain age. While apparently in a number of cases the frequency never becomes greater than this, and no other bad effects are felt, yet it is by no means always so, and the physician must be alert to guard against urinary infections, diverticula and stones in the bladder, renal insufficiency, and uremia, which occur in cases where the obstruction is a progressive one. For example, one man visited his physician because a rapidly enlarging abdomen necessitated the frequent purchase of new trousers. There was no urinary frequency. Catheterization revealed a residual urine of 2000 c.c. This sudden emptying of the bladder resulted in uremia, and the patient's recovery was in doubt for many days. Another sought medical advice because of a sudden increase in frequency and difficulty after four years, during which he had arisen to void four or five times every night. Examination revealed an enormously hypertrophied prostate, with multiple diverticula of the bladder. These became infected following catheterization, and this infection was not affected by treatment, making the patient an invalid even after prostatectomy, and requiring a second arduous operation

for removal of the diverticula. A third individual, with a slight frequency but with residual urine of 600 c.c., died of uremia forty-eight hours after his first catheterization, done only for diagnosis.

In the diagnosis of cases complaining of urinary frequency, the rectal examination, while important, may give wrong impressions unless it is supplemented by certain other procedures. The reason for this is that the degree of obstruction has nothing to do with the size of the prostate. In some cases we find the prostate much enlarged by rectum when there are no urinary symptoms and no residual urine is present. At other times the prostate may feel normal by rectum when a small hypertrophied mass directly in the region of the vesical orifice is causing the most extreme degree of urinary obstruction.

Much may be learned about these early or insidious cases by two simple procedures, both aimed at the discovery of residual urine without the use of any instruments. The first is nothing more than percussion of the bladder. If any bladder flatness can be detected above the symphysis just after the patient has voided, residual urine is present, and it is necessary to take warning. If there is flatness as much as two finger-breadths above the symphysis, the amount of residual urine is large, and active treatment, probably operative, is necessary. If there is flatness three or more finger-breadths above the symphysis, the residual urine is very large, and the patient is in very real danger, which may be increased by a hasty emptying of the bladder by catheter.

If, on the other hand, there is no flatness above the symphysis, one injects one c.c. of the usual phenolsulphonphthalein solution containing 0.6

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION Edited by Mrs M H Mellish Volume 16, 1924 Octavo of 1331 pages with 254 illustrations Philadelphia and London, W B Saunders Company, 1925 Cloth, \$13 00

The present volume, number 16, contains those papers published during 1924, abridged, abstracted or by title. This plan has been followed for the reason that many are too technical or of limited interest.

The vast and varied amount of material between the covers of this book makes it impossible to comment upon any of the individual contributions. It includes 214 papers by 126 contributors, which should impress all with the considerable work being done by the Staff of this aggressive Clinic.

These papers represent in book form an addition welcome to one's library

R H F

THE NATURE OF DISEASE By J E R McDONAGH, FRCS Part 1 Royal octavo of 327 pages with illustrations London, William Heinemann 1924 Cloth, £3 3s

This is one of the most extraordinary books the reviewer has ever read. So remarkable and original are its conceptions, that one is inclined to scepticism, yet so wide is the author's knowledge and so much experimental proof is brought forth that one is forced to concede respectful attention at least. One cannot but be impressed by the magnitude of the experimental work, the extent of the author's interests and his tireless energy.

Starting with research into the action of the spirocheta pallida upon tissue cells, the author is led to study the mechanism of staining reactions, cancer, the electronic behavior of body proteins, bacteria and drugs and finally comes to a new conception of the Wassermann reaction, sensitization and immunity.

Diverse and unrelated as these subjects appear, the author links them together in a truly remarkable concept. The title "Nature of Disease" suggests that these researches are an effort to get at the fundamental mechanisms of disease. Briefly stated, the author believes that disease and immunity reactions are the results of changes in the colloid and electronic states of the body proteins. Metals are conductors of electricity, all other substances, including bacteria, are condensers, varying in degree. The body proteins react to these substances causing changes in colloidal and electronic states which in turn cause tissue changes. To treat disease rationally one must study these electronic and colloidal changes by appropriate tests and use drugs which will restore the normal state. This sounds fantastic but readers who are familiar with physical chemistry will find much food for thought. If McDonaugh's work is confirmed, he will have opened up a new field for research and we will look forward eagerly for further contributions by this remarkable man.

E. B SMITH

MEDICAMENTS ET MEDICATIONS CARDIAQUES By H Vaquez Octavo of 302 pages Paris J B Bailliere et Fils, 1925

This book consists of reports of lectures on the treatment of diseases of the heart by Dr Henri Vaquez to his students, which were taken down by his interne, M. Theodoresco, and brought together in book form. The preface states that Dr Vaquez revised critically the

The scope of these lectures embraces practically the whole subject of cardiac therapeutic. Their style is that of a brilliant lecturer who has something to present. The informal manner in which the subject is presented is particularly pleasing, and compares favorably with the more formal manner of text books. Also, it is evident that the author speaks more freely in these lectures than he would in a formal text book, or than a

did, indeed, in his text book on diseases of the heart published a year ago. It is not too much to say that this book will prove of very great value to the average practitioner of medicine who desires to learn how to treat heart diseases. He will be able to get from it easily and pleasantly instruction by one of the greatest living cardiologists.

Those familiar with Dr Vaquez's writings are aware that he has done much to spread knowledge of the therapeutic value of strophanthus which he considers the "heart medicine par excellence." He has devised a technique for the administration of ouabaine, one of the crystalline strophanthus, which makes it possible to use that powerful remedy in cases of severe heart failure with great advantage.

So great is the practical value of this book that it is to be hoped that a translation will soon place it in the hands of English readers.

E. E CORNWALL

MODERN SURGERY, GENERAL AND OPERATIVE. By JOHN CHALMERS DA COSTA, M.D., LL.D., F.A.C.S. Ninth Edition, revised and reset. Octavo of 1527 pages with 1200 illustrations Phila. and London. W B Saunders Company, 1925 Cloth, \$10 00

This is the ninth edition of this work and its publication celebrates the thirty-first birthday. It is gratefully dedicated to Chevalier Jackson.

The author has tried to avoid writing a preface, but we are glad that he has succumbed and added those touches of humor which we have learned to expect from his pen. He has again revised and reset the bulk of the work himself, but he has received aid from the following Doctors: Chevalier Jackson, Randie C. Rosenberger, Charles F. Nassau, Elmer H. Funk, Thomas A. Shallow, Captain George U. Pilmore, M.C., U.S.N., Willis F. Manges, George E. Pfahler, Thomas Cook Stellwagen, Arthur J. Davidson, Harold W. Jones, Warren B. Davis, Hubley R. Owen and William L. Clark.

The author has wisely decided to omit Surgical Bacteriology, as well as chapters on asepsis and antiseptics and Bandaging.

It is to be hoped that this revision will prove the forerunner of many more to come.

R H F

ESSENTIALS OF IMMUNOLOGY FOR MEDICAL STUDENTS. By ARTHUR F COCA, M.D. Octavo of 194 pages, 16 plate illustrations Baltimore, Williams and Wilkins Co, 1925 Cloth, \$3 50

This volume is a review of the subject of Immunology, written primarily for medical students, but because of its conciseness, also suited to the needs of the physician. The theoretical aspects of the subject are contained in the first eleven chapters, which are condensed into about seventy pages. The style of presentation of material is critical and impersonal, and the author's intimate contact with immunological literature enables him to present the most recent conceptions and developments in the subject. Because of its simplicity and completeness, the chapter on Hypersensitiveness is especially worthy of commendation.

The next one hundred pages, comprising seventeen chapters are devoted to practical exercises. They include descriptions of the technique of various procedures, as the Schick test, Dick test, blood grouping, Widal Wassermann test, etc., together with brief comments as to the value and limitations of each. Two well illustrated chapters are devoted to descriptions of apparatus and general technique, and contain a wealth of practical information for the novice who is embarking on his first ventures in immunological fields. This little volume should prove exceedingly popular with student and physician, because, in it, the author has achieved brevity, without sacrifice of clarity or completeness.

M. W

two or three months in order to detect in their incipency any further complications which may occur

Various forms of treatment have been recommended in such cases where the situation is not urgent. They include prostatic massage, hot or cold rectal irrigations, treatment with ultra-violet light, diathermy, various forms of electric current, radium and X-ray. It may be said of all these forms of treatment that they have apparent-beneficial effects at least for a time, on some cases, but that they cannot be relied upon to effect a cure, or even an improvement in all cases. If it is decided to resort to any one of them, the same watchfulness must be observed so that in case they fail to accomplish any good, this failure will be detected in time to give the patient the benefit of surgical treatment.

If, on the other hand, frequency and burning are sufficient to annoy the patient greatly and deprive him of rest, if the residual urine is more than 100 c.c., if the kidney function is diminished, or if there is any nitrogen retention in the blood, early surgical treatment is indicated.

The results of surgical treatment of prostatic hypertrophy are among the most satisfactory in all surgery, since the danger of the operation is almost negligible and it is one which usually does not only help the patient, but cures him entirely and restores him to good health. In a series of 1,049 cases of hypertrophy of the prostate operated upon in Baltimore by Dr. Hugh Young, over a period of 15 years, the death rate was 3.4%. During seven of these years there were no deaths whatever. The cases were not carefully selected and included many who had been allowed to reach a very bad condition before surgical treatment was considered. Other surgeons, who operate upon large numbers of cases of prostatic obstruction, report figures comparable to these, whatever method of operation is used. The great success which these surgeons have obtained, however, is due less to their skill in performing the operation, than to the care exercised in preparing the patients for operation. This pre-operative care is based upon the principle that the obstruction should be relieved by a retention catheter or by a suprapubic cystostomy and that no further operation should be done until, aided by the copious administration of water, the patient's kidney function and general well-being have returned practically to normal. It

has been shown more recently, that, in case the residual urine is large, the above-mentioned relief of the obstruction must not be given suddenly, but, by use of a catheter, the pressure within the bladder should be reduced gradually over a period of days, thus allowing the kidney to accustom itself to working under conditions where there is no back-pressure upon it.

The prognosis in prostatic obstruction depends aside from the general condition of the patient, and the existence of other diseases not connected with the urinary tract, upon the amount of damage done to the urinary tract by the obstruction. Thus, if the obstruction is allowed to proceed for a very long time, the bladder, ureters and kidney pelves become dilated, diverticula develop in the bladder, stones form in the bladder or kidneys and infection usually occurs sooner or later, which may be confined to the bladder or may spread to the kidneys, giving rise to pyelonephritis, with resulting uremia. It is, therefore, an error to consider that surgical treatment is a last resort in cases of prostatic obstruction, since by so doing patients are allowed to reach a condition where their prospects for a successful result from the operation are much diminished. Obstruction should, on the contrary, be removed as soon as it is shown to be definite and unmistakable and at a time before the patient has been injured and weakened by the onset of the complications mentioned above.

In certain cases complications arise insidiously and there may even be very little to point to a urinary obstruction as the cause of the patient's disease. This is especially true when uremia, arterial hypertension, diverticula or stones develop, with no attacks of complete retention or no great dilatation of the bladder. The patient usually suffers from frequency of urination, but this may not be very pronounced and, as stated above, he may neglect for a long time to consult a physician about it. It is always wise to inquire about frequency of urination if the patient does not mention it. The measures described above will usually serve to disclose the presence of the obstruction and they should be applied in all cases having hypertension or uremic symptoms, even if no urinary symptoms are complained of. No male patient, above the age of fifty, should be treated for nephritis until it is definitely ascertained that he is not suffering from urinary obstruction. If obstruction is the cause of his renal

of a gram. This injection is best made intravenously to insure rapid absorption. The patient is instructed to void between 5 and 10 minutes after the injection and again at the end of 35 minutes, 1 hour 5 minutes and 2 hours 5 minutes. He should drink a considerable quantity of water before and during this test in order to assure a plentiful secretion of urine. The red color of the phthalein should appear in the first specimen voided a few minutes after injection. If it does not we may assume that the kidney function has been interfered with in some way. The second specimen, containing the urine secreted in the first half hour, should contain more phthalein than that secreted in the second half hour, while the sum of the second and third specimens, containing the phthalein secreted in the first hour, should be considerably greater than that in the fourth specimen containing the phthalein secreted in the second hour. The sum of all four specimens should be equivalent to what is ordinarily spoken of as the normal phthalein output for 2 hours, namely at least 55 per cent. If the concentrations in the last three specimens are about the same and if the quantity excreted in each is about the same, we may assume either that the kidney function is seriously damaged or that there is a large residual urine in which the kidney urine is diluted and in which a large proportion of the phthalein excreted by the kidney is retained in the bladder, so that we cannot measure it. This simple test, therefore, gives very useful information. If the result is normal we are sure not only that the kidney function is good, but also that there is little or no residual urine in the bladder, since, if there were, a portion of the phthalein would be retained and it would be impossible for the figures to be normal. If, on the other hand, there is a diminution in the excretion of phthalein, serious kidney damage has already occurred and we are, therefore, warned that we must immediately undertake further measures in order to be absolutely certain whether this reduction of kidney function is due to a prostatic obstruction or to a chronic nephritis.

The examination of the urine is usually done first, but it is really of less importance in these cases than the procedures mentioned above. There is nothing characteristic about the urine in prostatic obstruction. It is to be studied principally to determine whether or not infection is present. The urine should always be voided in

three glasses. A portion from the second glass should be centrifugalized and the sediment smeared on a slide, dried and stained with methylene blue. In this way one can determine the morphology of the cells present, determine the proportion of pus cells and also see whether the urine is infected with bacilli, cocci, or both, and the relative number of bacteria present. The specimen is taken from the second glass in order to avoid any contamination by pus or bacteria which may be in the urethra. Study of the urine also discloses other lesions which may sometimes simulate prostatic obstruction, especially tuberculosis.

Any physician can make the above examination easily in his own office and, if he does so, he is in possession of valuable information, which enables him to judge what the needs of the patient are. The important thing is to know not merely that an obstruction is present, but how much damage the obstruction has caused to the patient.

If the physician wishes, he can obtain still further information by catheterizing the patient, which will enable him to determine the exact amount of residual urine present and also the bladder capacity. Two precautions must always be observed, however. The first is to avoid emptying the bladder by catheter when the residual urine is very large, that is to say, when the bladder can be percussed two or more finger breadths above the symphysis immediately after voiding. The second is to avoid infection, which can only be done by observing the most scrupulous asepsis, irrigating the urethra before and after catheterization and leaving in the bladder a small quantity of some efficient antiseptic drug, such as mercurochrome, merocryl or argyrol.

If, however, it is not desired to catheterize the patient, a specimen of blood may be taken, which will reveal whether any nitrogen retention already exists in the blood stream.

Having made these studies, one may be guided by the following considerations. If the frequency is slight and annoys the patient but little, if the residual urine is less than 100 c.c., the kidney function good, the urine uninfected and the blood nitrogen normal, surgical treatment may be delayed. It is necessary, however, to impress upon the patient the importance of complications which may arise so that he will remain under observation. He should be seen at least every

"THE EFFECT OF PRODUCING ASEPTIC MENINGITIS UPON DEMENTIA PRAECOX" *

By E S BARR, M D, R GRANT BARRY, M D,
PHILADELPHIA PA

LAST June, in Atlantic City, at the meeting of the American Psychiatric Association, I read a paper entitled, "Aseptic Meningitis in the Treatment of Dementia Praecox" (7) In that paper was embodied the report of the clinical results obtained, the technique employed, and laboratory findings on the spinal fluid, in forty-nine cases of dementia praecox which were treated in the Philadelphia Hospital for Mental Diseases by the induction of an aseptic meningitis The aseptic meningitis was produced by the introduction of sterile inactivated normal horse serum into the spinal canal after the removal of spinal fluid

Although all the cases reported in that paper were treated in the Philadelphia Hospital for Mental Diseases under the immediate supervision of Dr R Grant Barry, Associate Physician, and the laboratory work was done by Mr David Matzke, Dr Robert S Carroll, of Asheville, N C, was given preponderant credit for the work done because he originated the treatment and first reported it in an article entitled, "Aseptic Meningitis in Combating the Dementia Praecox Problem," which was published in the New York Medical Journal and Medical Record in the issue of October 3, 1923

The paper read in Atlantic City attracted a great deal of attention and quite an extensive correspondence was entered into with hospital men and others throughout the country regarding the "treatment," so called We do not know of any further work having been published on the subject, though the treatment has been tried out in a number of hospitals We are especially glad to have the opportunity of bringing to the attention of the profession at this time a report of the present status of the cases reported a year ago, of the results obtained in other cases treated since that time, and to evaluate the work after the lapse of considerable time since it was first undertaken

The rationale of the treatment is based upon the observation that dementia praecox cases frequently register mental improvement during infectious processes and especially those which are associated with systemic leucocytosis The leucocytosis was assumed to represent "fresh regenerative impulse" (2) The production of systemic leucocytosis was abandoned after a time (1), but Dr Carroll struck upon the idea of producing a meningeal leucocytosis on the theory that the scavenger action of these cells would rid the central nervous system of toxins which were deleterious to its proper functioning

In the first small series of cases treated and reported (1), such striking beneficial results were obtained that after reviewing the literature (3) (4) (5) (6) on which the theory of the treatment was based, we decided to try it on a series of cases at the Philadelphia Hospital for Mental Diseases The first sixteen patients from whose relatives permission was obtained to employ the treatment were a very sorry lot, most of them being cases of long standing and belonging to so-called "deteriorated" classes of unquestioned dementia praecox cases Even so, in that group, twelve patients showed improvement and one young man, who had sunk to a merely vegetative existence, enjoyed a complete remission, gaining insight, and was sent out of the hospital in the care of his delighted and grateful parents This boy relapsed three months later His home surroundings were not good and the family did not carry out our suggestion that he be put to work He was kept closely confined as the neighborhood was rough, and he was giped, when he appeared on the street, with having been in a "nut house," etc After his return to the hospital, he was given five more treatments with improvement, but no remission, and is now a very great deal better than he was before his first treatments He is now cleanly, co-operative, and industrious, went home over Easter and got along very well

Of the forty-nine cases reported last June, we had this to say "There was no improvement, or only temporary improvement, in fourteen cases, six cases have enjoyed remission, one of which relapsed, but responded again to treatment, twenty-eight cases have registered continued improvement or such marked improvement that it should be mentioned, six of them relapsing in from two to four weeks Allowing for relapses sixty-six per cent of cases treated have received benefit which is still lasting after from two to twelve months" The last paragraph is quoted from our paper of a year ago Let us see what is the present status of those cases

Case.	Years in		No	Improvement.	Improved	Remission
	Age	Hosp				
1	22	9	X *			
2	26	6	*	X		
3	30	4		XX **		
4	33	3	X *			
5	35	2		XXX ***		
6	43	4		XXX *		
7	19	3	* (1)	X		
8	29	4		XX ***		
9	23	5		XX **		
10	20	1			****	
11	18	1		X	****	X
12	19	1	X *			
13	24	3	*	X		
14	40	1	*	XX		
15	22	1	*	XXX		

* Read at the Annual Meeting of the Medical Society of the State of New York, Syracuse May 13 1925

insufficiency it is likely that the relief of the obstruction will allow the function to return to normal, or almost to normal. If there is arterial hypertension in the presence of a chronic urinary obstruction, there is a good chance that the pressure will be markedly diminished after the relief of the obstruction. In certain cases, unfortunately, the hypertension persists, but in many others the blood pressure falls to a normal figure after operation.

Diverticula and vesical calculi constitute serious complications of urinary obstruction. This is principally due to the fact that when they are present, infection is more apt to occur and is resistant to all forms of local treatment. Stones in the bladder can be removed at the time of operation, and if the obstruction is also completely eradicated, the stones are very unlikely to recur. Small diverticula may give no trouble after the removal of the obstruction, but if they do they must be removed by a second operation. The operation for the removal of diverticula is much more serious than that for the removal of enlarged prostate. In certain cases where the patient is in very good condition, it may be advisable to remove the prostatic obstruction and the diverticula at the same operation.

The cause of the prostatic obstruction is usually benign prostatic hypertrophy, sometimes called "adenoma of the prostate," but it may also be carcinoma of the prostate or contracture of the vesical orifice. Carcinoma of the prostate, however, unless it occurs in conjunction with benign hypertrophy, is not apt to cause urinary obstruction until it is far advanced. It is for this reason that rectal examinations should be made in all male patients over fifty, even if there are no urinary symptoms. Carcinoma can usually be detected on rectal examination, since it nearly always causes the prostate to be extremely hard and irregular, although not necessarily enlarged. In early cases in which the carcinoma is small, it may be removed radically along with the rest of the prostate and seminal vesicles, with excellent prospects of cure. In more advanced cases, implantation of radium, while it may not effect a cure, will usually diminish the local growth to such an extent that urinary obstruction will not occur and the patient's life will be made comfortable. Where urinary obstruction is already present, it may be necessary to operate, removing the central portion of the prostate merely for the purpose of relieving the urinary obstruction. Radium may be implanted at the same time. The results of this operation are surprisingly good, the reason being that carcinoma of the prostate is such a slow-growing tumor that healing of the wound occurs just as rapidly and favorably as in benign cases and the urinary function is restored to normal. The patient is thus saved the great discomfort which accompanies urinary obstruction and the danger of death from uremia,

although we may be unable to prevent an ultimate fatal ending due to metastasis.

Contracture of the vesical orifice is apt to occur at an earlier age than either benign hypertrophy or carcinoma of the prostate. It is usually seen in those with a history of long-standing chronic infection of the urethra and prostate. Its effects on the kidney and bladder are the same as those of other prostatic obstructions and it is therefore just as necessary that this type of obstruction be relieved. In these cases, of course, there is no enlargement of the prostate to be felt by rectum and the special examinations described above are necessary, if one is to make the proper diagnosis. The obstruction can usually be removed by the punch operation, using, preferably, a cautery apparatus. This is done through the urethra and requires no cutting operation. The prognosis in these cases is excellent, providing the obstruction has not existed so long that serious infectious complications are present.

In view of the above facts, it is felt that prostatic obstruction, provided it is not due to carcinoma, is a much less serious disease than is commonly believed, since such good results are to be expected from operations which are practically devoid of danger. It is indeed the pessimistic view of surgical treatment, with its resultant delays, which allow serious complications to result from prostatic obstruction, thereby endangering the patient's life and diminishing the chance of cure by operation. All of these considerations apply with double force when the obstruction becomes so pronounced that complete retention occurs and it is necessary for the patient to be catheterized. As soon as catheterization has begun, infection of the bladder is practically inevitable and this often brings on cystitis and pyelonephritis, which result in serious permanent damage to the kidney and also frequently in the most distressing pain and discomfort to the patient. The dangers of a catheter life are much greater than those of an operation for prostatectomy.

The statements made above are designed to show that it is not necessary to be a specialist in order to make a diagnosis of prostatic obstruction. On the contrary, one can, by the very simple measures described, not only make the diagnosis of prostatic obstruction, but form a very good estimate as to the cause and degree of the obstruction. Since prostatic obstructions are so common in elderly men and since the consequences are so serious, it is certain that a knowledge of this condition is necessary to every one who practices medicine, just as much as the knowledge of heart disease, pneumonia or whooping cough.

puncture was made and 25 c.c. spinal fluid withdrawn. Twenty c.c. of normal horse serum, free from any preservatives, is allowed to flow into the spinal canal by gravity. The patient is now returned to his bed and foot of the bed elevated. T P R are taken every four hours until return to normal. Ordinarily, the temperature rises in the first four to eight hours to 103 deg and gradually returns to normal in four days. If the temperature persists for a longer time, as it does sometimes, no further treatment is undertaken until it returns to normal, both morning and evening.

Sometimes, especially in the early cases treated, we had symptoms of brain edema. These yielded readily to the hypodermic injection of adrenalino and lately we have made the injection of 10 m. of a 1:10,000 solution of adrenaline every four hours a routine procedure until the peak of the temperature has passed and have, for the most part, eliminated these unfavorable reactions. Sometimes there is evidence of anaphylactic reaction, as skin eruption, etc., for which, in addition to adrenalino, the system is thoroughly alkalinized by the administration of sodium bicarbonate by mouth.

During the period of temperature reaction and for several days after, the patient complains of severe headache, especially sub-occipital, and frequently of backache. In some cases, herpes labialis has been noted, and sometimes transient neurological signs, as ocular palsies with complaint of diplopia, etc. Except in the one case before mentioned, these signs have disappeared after a few days and further treatment has never been undertaken as long as they persisted.

As to what happens sub-durally, we reported exhaustively last June the spinal fluid findings in the cases treated and showed color charts of the cells. Briefly summarized, they are: A marked pleocytosis reaching its maximum of from 200 to 300 cells per c.u.m.m. about a week after the third injection. "The polymorphonuclear elements occur in only a very negligible percent. Neutrophilic and basophilic granules occur in their cytoplasm. The cells of the lymphocytic series characterize the bulk of the elements present." There are a number of eosinophiles usually seen after the third injection. There is also observed a type of cell undiagnosed, "a cell which has entirely lost its cytoplasm and whose large round nucleus contains many vacuoles. These nuclei do not stain the blue of the other mono-nuclear elements, but appear a distinct purple in contrast, and as it is impossible to differentiate them from the lymphocyte, mono-nuclear leukocyte, endothelial cell or the nucleus of some other mono-nuclear body cell, it was decided to call them for the present, "undiagnosed" (7). As to the significance of these "un-

diagnosed" cells and the eosinophils which we understand are found in the spinal fluid under no other condition, we are still in the dark.

We have had only one death during the course of the treatments. It is doubtful if this death could have been caused by the aseptic meningitis produced, as the patient had other physical disease as before mentioned. Grossly, the brain showed "edema, thickened piaarachnoid, thick dura. Histologically acute meningitis, the piaarachnoid throughout showed definite infiltration with cells that are mainly polynuclears, especially pronounced about the vessels and present over cortex and base, the vessels, especially the basilar, show little or no sclerosis, the cortex, aside from the very slight glial nuclei increase and pallor of ganglion cells, shows no changes, the spinal cord, aside from meningeal changes, shows no abnormalities."

We are convinced that the production of aseptic meningitis in dementia praecox cases by the introduction of sterile inactivated normal horse serum into the spinal canal, brings about mental improvement in a large percentage of cases. This mental improvement varies from remission of the usual manifestations of dementia praecox, accompanied by insight, to merely better habits being established in deteriorated cases. In some private cases reported by Dr. Carroll, and in two which I treated myself, almost miraculous temporary remissions were manifested. However, both of the latter cases relapsed after a few weeks.

We do not feel that either the meningeal and other physical reactions stirred up by the introduction of sterile normal horse serum into the spinal canal, or the mental improvement which follows this procedure, are due to any specific virtue which resides in the horse serum itself. We rather feel that the mental improvement is due, possibly, to an increased circulation to the central nervous system, perhaps aided in some way by the throwing out of white cells. But we do feel that the demonstration of the fact that mental improvement, even temporary, can be brought about in this way in a large percentage of dementia praecox cases, some even of long standing, is a contribution to science. Some principle is involved here which, if possible to pursue further, may throw much light on the causes of dementia praecox. We intend to follow the clue and continue our research along this line. Even if we demonstrate its futility eventually, we shall have made some contribution to psychiatry by covering ground which other investigators may then pass over.

Briefly summarized, our conclusions are as follows:

1. The introduction of sterile, inactivated, normal horse serum, by a series of treatments, into the spinal canal of cases of dementia praecox produces

Case	Age	Years in Hosp	No Improvement	Improved	Remission
16	38	2		X ****	
17	29	1	*	XX	
18	26	3	*	X	
19	22	3	X *		
20	20	3	*	XX	
21	24	4		X *	
22	38	2		XX ** (2)	
23	31	2	X * (3)		
24	26	4		X *	
25	24	1			X *
26	37	2		XX **	
27	30	2	X	*	
28	16	1	*	XX	
29	31	3	X	* (4)	
30	28	2	*	XX	
31	38	2		XX ***	
32	36	2	*	X	
33	31	2		**	X
34	34	1	*	X	
35	22	1	X *		
36	23	2	X *		
37	29	2			X *
38	45	1	X *		
39	22	1	X *		
40	35	2			X * (5)
41	34	1	X *		
42	23	1	*	XX	
43	19	1		X *	
44	37	1	X *		
45	15	2	*	X	
46	20	6		X *	
47	29	1		****	X
48	37	1	X * (6)		
1 year ago	48 cases	14		28	6
Today	48 cases	26		19	3

KEY TO ABOVE TABLE

Crosses indicate status of case in June, 1924

Stars indicate status of case at present.

Number of each indicates degree of improvement

(1) Died of pulmonary tuberculosis, 3-7-24

(2) Died of pneumonia, 3-3-25

(3) Only one treatment because of very severe reaction

(4) Two more treatments after series

(5) Died of pulmonary tuberculosis, August 13, 1924

(6) Only one treatment because of poor reaction

From these figures, it is apparent that 46 per cent of 48 cases of dementia praecox treated by the introduction of normal horse serum into the spinal canal, registered improvement ranging from merely better institutional adjustment to apparent remission and lasting, in some cases, nearly two years. Many other cases showed improvement for periods varying from two weeks to a number of months. It may be that, eventually, all who showed improvement will return to before treatment states, or even below. Also, we must not be too quick to decide that the improvement still apparent may all be credited to any degree of specificity in the induction of aseptic meningitis. More will be said of that later.

We have been the least but skeptical of the therapeutic wisdom of employing such drastic treatment unless the benefit received were quite marked. Some time ago the question was laid before the medical staff of the hospital, and, because they felt it had too much therapeutic value

to be abandoned, we embarked upon another era of the treatment and have thus far completed sixteen cases with the following results

Case	Age	Years in Hosp	No Improvement	Improved	Worse
49	50	32		X	
50	38	11	X		
51	24	3			X
52	22	4	X		
53	21	13		XX	
54	36	5		X	
55	48	22		XX	
56	31	3	X		
57	39	2		XXXX (1)	
58	33	15		XX	
59	21	3		X	
60	25	6		X	
61	25	2	X		
62	53	19	X		
63	24	2			X (2)
64	50	2			X (3)

16 5 9 2
(1) Only two injections—peculiar reaction. Now working outside hospital.

(2) Only three injections—unfavorable. Neurological residue (spastic gait)

(3) Die during course of treatments

In this last group of cases patients were included who had been in the hospital for many years, one for thirty-two years, another twenty-two, another nineteen. The average hospital residence for the group was nine years. Even though we might be ever so critical of the treatment, we must, in fairness, admit that such a group could promise little hope of betterment. Even so, nine of the fifteen cases showed improvement varying from better institutional adjustment (less untidy, etc.) to a return to self-supporting life outside the hospital.

Of the two cases charted as "worse," one had an unfavorable reaction after two injections and the treatment was discontinued. He is better mentally, but is classed as worse because of the residuum of a spastic gait, the only persistent unfavorable neurological aftermath in all the cases treated. The other man placed in the "worse" column died. He was a negro, fifty years old, with arterio sclerosis, one atrophic kidney, persistent thymus, and myocarditis—an unsuitable case for any drastic therapy. This was the only death which we have laid directly to the treatments, though we did feel one case of pulmonary tuberculosis was possibly lighted up by treatment.

A few words as to technique. Two nights preceding the treatment, the patient is given two grains of calomel in fractional doses and the following morning a saline. In the afternoon of the day preceding the treatment, the patient is put to bed and placed on liquid diet. These precautions are taken as vomiting was very common at first and especially as green vomitus was frequently seen.

For the administration of the serum, a lumbar

observations are of common occurrence, the subject is nevertheless in need of further study

In the medical management of these local bacterial invasions of the colon wall, the need of a real antiseptic, presenting an ideal combination of high tissue penetrability with low toxicity, has long been felt. The writer is experimenting with some of the aniline dyes and presents a preliminary report herewith, and also in another paper (1)

CASE HISTORIES

CASE 1 (No 5799) Male, 42 years, married. Patient is overworked and has had no proper relaxation for 15 years

Complaint Crises of fatigue and depression associated recently with diarrhoea. Has been subject to attacks of diarrhoea with sweats, chills and fever and rapid pulse and poor sleep. The stools have contained mucus but no evident blood.

Physical Examination Examination showed everything apparently normal except for infected tonsils and three devitalized teeth, one abscessed tooth and three in which the pericementum showed absorption. Frequent examination of the feces showed no mucus, pus or blood, but cultures showed a predominance of *Bacillus coli communior*, a few colonies of *Bacillus lactis aerogenes*, and a few streptococci. Gram-stained smears showed a predominating Gram negative flora. The Gram positive were single cocci, some as diplococci. *Bacillus acidophilus* was scant, perhaps about 5 per cent. A vaccine was made from colon bacilli obtained from these cultures.

Radiographic Studies These studies were confined to the region of the colon. The observations were marked right-sided pericolic membranitis, with what was probably a partially obstructive imbrication involving the transverse colon. The ascending colon was absolutely unobstructed and considerably relaxed. The descending colon showed relaxation also.

The blood examination was interesting and instructive. Red blood cell count was 4,430,000 with 60 per cent of hemoglobin, white cell count 8,450 with 33 per cent of polymorphonuclear cells, 66 per cent of lymphocytes and 1 per cent eosinophiles, showing the common inversion of lymphocytes and polynuclear cells, recently discussed by Draper and Johnson (2). The urine was normal and the blood Wassermann was negative. The blood urea and non-protein nitrogen were high, 33 mg and 32 mg per 100 cc, respectively. (These were taken 6 months after treatment was begun.)

The treatment consisted in detoxicating the patient by the removal of infected tonsils and dental infection and placing the patient on a low protein diet. The patient was also given cultures of acidophilus and colon irrigations with washed Krameria and later with acriviolet solutions.

Hydrotherapy, iron citrate given hypodermically and colon vaccines in minute doses every 4 days were prescribed.

The improvement during 4 months of medical treatment was shown by regular and normal bowel movements, with improved sleep and heart's action. The hemoglobin increased slightly and the leucocyte count rose from 8,450 to 11,220 with an increase in polynuclear cells from 33 to 75 per cent.

Shortly after this examination (December, 1924), the patient had an attack resembling influenza with a temperature of 105°. This was during a mild epidemic of influenza. Nasopharyngeal discharge showed many streptococci. These streptococci then appeared in the feces in large numbers. Diarrhoea returned. Frequent nasal applications of acriviolet dye were given together with vaccines of colon organisms alternating with a vaccine made from streptococci recovered from the feces.

In a month's time, radiographs of the colon were taken again (January, 1925), and the report follows:

"In comparing the barium enema plate with the one taken in August, 1924, it is evident that there has been pronounced improvement in the condition of the entire colon with particular reference to the ascending portion. The imbrication which was so marked in the previous examination seems to be greatly relaxed and the contraction of the transverse colon much less noticeable. The ascending colon is well filled and presents frequent and nearly regular haustral markings. There has been no leakage into the terminal ileum. The marked improvement in the right side indicates the value of medical measures in handling these cases."

Although the physical condition of the patient was very markedly improved by the detoxication and immunization, his physical endurance was very poor. For this reason prolonged rest in Europe was advised and accepted. He is still continuing vaccine therapy and the use of the aniline dyes.

Points of interest in this case of toxic neurasthenia

- 1 Effect of prolonged overwork and strain on an already existing intestinal (colon) infection
- 2 Improvement after (a) detoxication and (b) immunization by carefully selected vaccines
- 3 Sudden appearance of influenza and streptococci in the feces
- 4 Value of aniline dyes in colon infections
- 5 Need of prolonged rest following these procedures

CASE 2 (No 4444) Male, 30 years, single

Complaint Lowered efficiency and vitality, secondary tendency to constipation and gas. At the age of 15 years, the patient remembers stomach upsets. He first came under observation in January, 1922, with malaise, rapid pulse, flatus

REFERENCES

- (a) A marked physical reaction with high temperature
- (b) An aseptic meningitis
- (c) Mental improvement of varying degree in a large percentage of cases
- (2) Younger cases are more responsive and their improvement more lasting
- (3) Certain cases are unsuited, those over 45, those having tuberculosis, those having other systemic diseases, as arterio-sclerosis, cardio-renal disease, general adenopathy, persistent thymus, etc
- 4 That the reactions observed and mental improvement noted are most probably not due to any specific virtue belonging to horse serum, but, so far, we have found no other agent or method of treatment which yields the same result

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- 2 A Few Demonstrations of Pathology of the Brain and Remarks on the Problems Connected with Them.—Meyer
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CHRONIC INTESTINAL INFECTIONS NON-ULCERATIVE TYPES *†

By G REESE SATTERLEE, M D

NEW YORK CITY

AS the title of this paper indicates, the ordinary types of ulcerative colitis have been excluded as far as possible by clinical and pathological methods. There remain, however, a very large number of patients in whom there is roentgenological evidence of chronic colitis together with a suggestive clinical history of either diarrhoea or constipation or both. On the other hand, there are patients in whom the historical evidence is negligible, and in such cases, the physical and roentgenological findings must be relied upon almost exclusively.

The source of the majority of these colon infections is undoubtedly to be found in the oral cavity, but it is by no means certain that other foci do not also play an important part by spreading infection to the intestine by the blood stream and lymphatics. In some cases we know that proctitis and infected hemorrhoidal crypts result in an ascending infection involving the colon. Chronic constipation with its resultant irritation of the walls of the colon by hardened scybala is a common predisposing cause. The inverse may also be true, namely, that constipation can follow a generalized infection of the colon mucosa. Such constipation is of the protective type.

From the viewpoint of a specific bacterial etiology, the cases may be classified into three general groups (1) colon disorders sequential to contagious diseases, such as influenza, scarlet fever, and other allied infections of the streptococcic type, (2) local colon infections caused chiefly and primarily by various forms of strep-

tococcus and colon bacillus, (3) somewhat obscure infections caused probably by anaerobic organisms. This last group will not be discussed in this paper. Typhoid fever has not been included as a separate etiological entity because it is accepted that the typical lesions produced by *Bacillus typhosus* are ulcerations of the intestinal mucosa. Typhoid fever may become, however, an important predisposing factor in the later development of chronic colon disease. The ordinary pyogenic organisms that are found in the stools of chronic intestinal invalids should be regarded as either accidental or as evidence of ulcerative processes.

This paper is chiefly concerned with the consideration of colon disorders produced by two types of aerobic organisms—the colon bacillus and the streptococcus. Since there are numerous varieties of these organisms, it has been found most practical to culture and select them for specificity according to the method of Holman. Many of these organisms are of no pathological significance and may be present in the feces of normal individuals, just as the pneumococcus may be present in the sputum of an individual not suffering from pneumonia.

It is important to bear in mind that the streptococcus may be and frequently is the first offender in these colon infections and that the colon bacillus often plays a rôle of secondary etiological importance. In this connection it has been interesting to note the frequent occurrences of large numbers of streptococci in the stools of patients convalescing from an attack of influenza or an attack of streptococcic nasopharyngeal infection. One illustration of the above conditions has been cited in the case histories to follow. While these

* Read before the meeting of the American Therapeutic Society Atlantic City May 22 1925

† Aided by a grant from the Andrew Todd McClintock Memorial Foundation for the Study of Gastrointestinal Diseases.

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The treatment consisted in detoxicating the patient by the removal of infected tonsils and dental infection and placing the patient on a low protein diet. The patient was also given cultures of acidophilus and colon irrigations with washed *Krameria* and later with acriviolet solutions.

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Although the physical condition of the patient was very markedly improved by the detoxication and immunization, his physical endurance was very poor. For this reason prolonged rest in Europe was advised and accepted. He is still continuing vaccine therapy and the use of the aniline dyes.

Points of interest in this case of toxic neurasthenia:

- 1 Effect of prolonged overwork and strain on an already existing intestinal (colon) infection
- 2 Improvement after (a) detoxication and (b) immunization by carefully selected vaccines
- 3 Sudden appearance of influenza and streptococci in the feces
- 4 Value of aniline dyes in colon infections
- 5 Need of prolonged rest following these procedures

CASE 2 (No 4444) Male, 30 years, single.

Complaint Lowered efficiency and vitality, secondary tendency to constipation and gas. At the age of 15 years, the patient remembers stomach upsets. He first came under observation in January, 1922, with malaise, rapid pulse flatu-

lence, slight constipation and many varied sensory symptoms, nervousness, aches and pains, phobias and insomnia

Physical Examination Examination showed rapid pulse, blood pressure of 110/80, dry skin, pustular acne, infected tonsils, hemorrhoids with tight anal sphincter and one infected tooth. Gastrointestinal examination showed a large redundant colon with low grade inflammatory changes, particularly on the right side, where there was an inseparable coil at the hepatic flexure. There was a mild incompetence of the ileocecal valve. There was total colon stasis. Blood Wassermann was negative. Hemorrhoidectomy was performed on August 1, 1924. The following October, the patient's blood pressure was 118/90 and pulse 98. The stool was putrefactive in character and contained a very great excess of *Trichomonas intestinalis*. He was placed on antiputrefactive diet and given large doses of thymol on the supposition that the trichomonas in such large quantities in the stool might be pathological. After a week of thymol, trichomonas were still numerous. Autogenous colon vaccines were then prepared and the colon irrigated with acriviolet solution, 1 35,000, which was retained for 20 minutes after the method of Churchman (3). Local and general reactions followed vaccine with slight temporary cervical adenitis. After a month of this treatment, trichomonas disappeared and the patient was brighter and stronger, but had occasional intestinal flareups with constipation. The vaccines gave more severe reactions and the dosage was diminished. Basal metabolism was minus 10. Examination of the feces showed acidophilus to be 20 per cent of the entire flora. The stools were acid, loose and contained many trichomonas. Vaccines and acriviolet solution treatments of the colon were continued. The stool showed a slightly acid reaction, a moderate number of trichomonas and a few streptococci and colon bacilli. A radiograph of the colon about this time showed a much better tone than 6 months previously, the right-sided angulation was still present, the ascending colon had better appearance and there was less ileocecal leakage.

In spite of increased well being and efficiency, the blood pressure continued to decrease until it registered 90/70, in March, 1925. An infected bicuspid with a granuloma was then extracted. The stools still showed trichomonas in large quantities whenever the acriviolet solution irrigations were discontinued. Fifty c.c. of an acriviolet solution 1 1,000 (0.052) gm were given into the duodenum through a duodenal tube. Seventy-two hours later the dye was recovered in the feces and the trichomonas disappeared. Later the dye in solution was given by mouth successfully.

The stool on May 19, 1925, which was the

largest formed stool in the history of the case, was passed 5 days following the administration of 0.078 gm acriviolet through the duodenum. There was a distinct line of demarkation between the dye and an unstained portion of the stool, showing that it took 5 days to eliminate the dye through the intestine. The culture showed about 50 per cent acidophilus (Acidophilus culture milk had been taken since the administration of the dye). Acidophilus predominated in the unstained portion of the stool. Trichomonas, less than 1 per cent, were present in the unstained portion. The patient's mental efficiency and power of endurance has been greatly benefited by 8 months of treatment.

Points of interest in Case 2

- 1 Excessive mental and nervous depression associated with and apparently dependent upon intestinal toxemia

- 2 Excessive amount of *Trichomonas intestinalis* in feces

- 3 Value of selected autogenous vaccines in immunization

- 4 Beneficial results of aniline dyes

- 5 Radiographic evidence of improvement in colon parallel to that of physical improvement

CASE 3 (No 4192) Female, age 62 years, married

Complaint Chronic intestinal invalid for years. General hypersusceptibility to many food stuffs, drugs and infection. Her susceptibility to infection was not helped by an extensive amount of badly constructed dental repair work, bridges, crowns, caps, pivot teeth, which included, of course, many dead teeth. When first seen in August, 1921, the patient was a profound neurasthenic in bed with loss of appetite, loathing of food, irregular bowels, diarrhoea, constipation and mucus in the stools. She was relieved of a mass of gold plate and many infected teeth which had produced necrosis of both maxillae and chronic maxillary sinusitis.

These operations were followed by marked relief in symptoms. Within 2 months, tonsillectomy and hemorrhoidectomy for infected tonsils and hemorrhoids, were performed. The cervix was slightly infected and curetted. At this time, the patient weighed 119 lbs and was 5½ ft in height. The stools showed undigested food, mucus at times. Cultures were taken from the feces and vaccines obtained from colon organisms (*B. acidilactici*) were given. These were discontinued because of the severe reactions, but given later in small doses with success, February, 1922.

There was marked improvement and the weight reached 130 lbs. The patient was more or less invalided throughout 1922, and the winter of 1923, during which time colon vaccines were regularly given. A most interesting factor in relieving the nervous symptoms was demonstrated through the isolation of two organisms of the colon group, *Bacillus communior* and *Bacillus*

Morgagni, from the stools. Intradermal tests showed marked reactions from both but very severe from *Bacillus Morgagni*. Small doses of vaccine made from the organisms demonstrated conclusively their value, relieving the nervous symptoms and enabling the patient to convalesce. Today, May, 1925, she weighs 137 lbs., as against 119 lbs. four years ago.

Points of interest in the case

- 1 Bacterial origin of the neurasthenia
- 2 Necessity of removal of foci of infection
- 3 Value of immunization by means of carefully selected organisms
- 4 Interrelationship of food and bacterial proteins

5 Value of aniline dyes as bactericides

CASE 4 (No 5084) Female, 36 years of age, single. This case is included because we have a full report of Dr James Ewing's pathological examination of the colon following colectomy.

Complaint Extremely severe attacks of migraine for 6 years. Impossible to move bowels without strong cathartics. One of the colon group of organisms (*Bacillus neapolitanus*) was isolated from the stool and from which a vaccine was made. This vaccine produced such profound reactions that it was discontinued. After the removal of foci in the mouth (infected teeth and tonsils), infected cervix and rectum, abdominal section was performed and a badly diseased and obstructed colon was removed. The result was relief of headaches and marked improvement for 2 years.

Pathological Report "Specimen consists of about 15 inches of colon and 5 inches of ileum. The entire mucosa of the colon is moderately pigmented. There are no definite ulcerations or erosions. Just above the ileocecal valve and again 6 inches above the valve, there are definite hernia pouches $1\frac{1}{2}$ cm deep and 2 cm wide, in which the mucosa is very thin and the muscle atrophic, rugae obliterated. The colon seems to be of about normal dimensions. The ileum shows no gross changes.

On microscopic section the most striking feature is pronounced chronic catarrhal enterocolitis. The mucus cells are enormously increased in number. The lining epithelium of the ileum and of colonic rugae and the glands is markedly hypertrophic. In the colon there is general marked lymphatic infiltration of the mucosa.

Anatomical Diagnosis Chronic catarrhal enterocolitis, diffuse pigmentation, hypertrophy of lining epithelium, multiple herniae of colon mucosa.

The histories of Cases 5 and 6 have been omitted for the sake of brevity. Case 5 was one of long-continued colitis of ascending origin from a proctitis. The nervous symptoms overshadowed the local colon signs, which were therefore overlooked.

Case 6 was one of extreme mental and nervous depression due to focal infection and chronic colitis. The colitis was severe but undiagnosed. Both these cases responded well to detoxication and immunization.

It is most unfortunate that there has been great limitation in the extent of the colon studies made in the type of cases considered in this paper. This has been due to the fact that very little has been known until the last year or so about the pathology of the colon, for as yet there is no recognized standard upon which to base analytical studies. That this is so, is evidenced by the frank acknowledgement by Dr Ewing (4), who has explained our lack of knowledge of the diseased colon by the great scarcity of fresh tissue available to the pathologist in the past.

It will be readily seen therefore that one of the great benefits arising from the intensive study of the subject by Dr Cotton and Dr Draper, in the State Hospital, at Trenton, New Jersey, will be the dissemination of accurate knowledge of the lesions of the colon based upon a careful study of fresh specimens removed at operation.

It has been the author's privilege to study over three hundred of these pathological specimens. These have been removed during the past seven years in the surgical clinic of the New Jersey State Hospital, by the writer's associate, Dr John W Draper, under the supervision of the medical director, Dr Henry A Cotton. He has also derived much information in the private practice of Dr Draper and himself. Such a cooperative effort will undoubtedly lead to a more perfect understanding of this intricate subject.

It is above all necessary for those who make the preoperative observations, roentgenological and otherwise, to be present at the time of operation. For only by a constant process of trial and error can one reach any clear comprehension, preoperatively, of these little-understood colon lesions. These must be seen *in vivo* to be appreciated and understood. In some instances, in our private work, we have found that freeing the constricted bowel by the removal of bands and adhesions has been all that was necessary. In others, the removal of the colon seemed, as stated by Dr Ewing some three years ago, and based upon a study of our material, to be the only procedure indicated to give relief. The original studies by Ewing have been augmented recently by a much more complete series by Dr John W Churchman (5), whose observations were presented in a paper from the Andrew Todd McClintock Memorial for the Study of Gastrointestinal Diseases, and recently read before the Mayo Clinic. This monograph gives a very full, explicit and convincing account of his study of 165 colons from Dr Draper's hospital series. This paper is well illustrated and should be read by all those who are interested in the subject of the relationship of the colon lesions

to nervous and mental disorders. Obviously, it is only through long experience in comparing roentgenological examinations with the surgical observations at operation or the postmortem specimens, that one can become at all proficient in identifying colonic lesions and in reaching a decision with reasonable accuracy regarding their extent and probable cause.

The roentgenological findings, as has often been emphasized in previous communications on the subject of colon lesions, are not necessarily accompanied by intestinal delay. Indeed, the word "stasis" which has crept into colonic literature is exceedingly objectionable. We feel that undue speed and spasm, as indicated in the x-rays, are quite as frequent accompaniments and indicators of serious colon lesions as are delays. One fairly conclusive observation is that the occurrence of the so-called segmental colonic lesions which have been observed and described by many critical students, should be explained frequently by the presence of constricting bands. The colon is resentful of such pressure. It interferes with the rhythm of peristalsis, in the early stages produces spasms and later causes serious destruction of the bowel wall. This leads to leakage, to chronic peritonitis and to absorption of extremely toxic products, many of which are selective to important parts of the nervous system. It is for this reason that we agree with those who advocate section or removal of these bands in childhood.

There is no doubt that they constitute a very real and serious menace to adult life.

SUMMARY OF TREATMENT

- 1 Thorough roentgen ray studies
- 2 Removal of focal infections, particularly of the teeth, tonsils and accessory sinuses
- 3 Removal of toxic products from the colon by irrigation
- 4 Local application of germicides, such as the aniline dyes, to the gastrointestinal mucosa.
- 5 Immunization by natural methods and by autogenous vaccines obtained from feces or by sera
- 6 General hygienic measures, including rest and regulation of diet
- 7 In refractory cases, operation

The author wishes to acknowledge his indebtedness to the Andrew Todd McClintock Memorial Laboratory for the routine laboratory and research work.

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HISTORY, PHYSICS, AND BIOLOGICAL EFFECTS OF RADIUM*

By G ALLEN ROBINSON, M.D.,

NEW YORK CITY

Radioactive substances and their radiations are a result of the discovery of the X-ray. In a search for invisible light rays Professor Wilhelm Konrad Roentgen turned on a low pressure discharge tube which was enclosed in stout black paper, and noticed that a fluorescent screen lying on a table some three meters away shone out brightly. If obstacles were interposed he found that they cast shadows on the screen, and, in this way traced back the unknown or "X" rays to their source, which proved to be the region of impact of the cathode particles or negative electrons on the glass walls of the tube. He at once appreciated the significance of his discovery to the medical profession and communicated his results to the Physics-Medical Society of Wurtzberg, Bavaria, in November, 1895.

The impetus of Roentgen's discovery led to a general search for phosphorescing bodies that emit penetrating radiations. Professor Henri

Becquerel examined crystals of the double sulphate of uranium and potassium which he had prepared fifteen years before. He wrapped a photographic plate in two layers of thick black paper so that the plate would not be fogged even if the package were exposed to the direct sunlight for an entire day. On the outside of the paper enclosing the plate was laid a crystal having the form of a thin transparent crust, and the whole was exposed to the sun for several hours. The plate was then developed and on it was found a black silhouette of the phosphorescent crystal. He found that the interposition of a thin sheet of glass between the phosphorescent crystal and the black paper did not change the appearance of the silhouette. This proved that the effect could not be ascribed to a gas given off by the crystal. He also found that metal objects placed between the crystal and the paper cast shadows on the silhouette. He then found that these same effects could be produced through a plate of aluminum and through thin copper foil.

*Read before the American Electrotherapeutic Association, Chicago, Sept. 16, 1925.

The announcement of this new property of matter, radioactivity, was made by Becquerel to the Academy of Science, Paris, February 24, 1896. There are four main properties of radioactive substances¹. First, the effect on a photographic plate, similar to that of light or X-rays, second, phosphorescence or fluorescence is excited in certain substances, third, ionization of gases; and, fourth, the production of heat. One gram of radium gives out 133 calories per hour.

Among Becquerel's students at the University of Paris was Marie Skłodowska, of Poland (afterward Mme Curie). To her was committed the problem of determining what substances were radioactive. With the collaboration of her husband, M. P. Curie, she undertook the problem of isolating these elements. Mme Curie found that certain natural minerals were more radioactive than uranium itself. Thus, some varieties of pitchblende, particularly that from the Joachimsthal mine in Austria, contained 50-80 per cent uranium oxide and were about four times as active as the purer uranium.

Hence, one of two things must be true (1) that radioactive substances had entered into chemical combination and the activity increased, or, (2) some other radioactive substance other than uranium was present. M. and Mme Curie relied on the more plausible hypothesis that a new element existed, and by a systematic chemical analysis two new elements were soon discovered. The first of these was separated with bismuth and was highly radioactive. The name polonium was given to this element by Mme Curie in honor of the country of her birth. It was next observed (1898) that another radioactive substance was separated with barium and to this was given the name radium. A gold-leaf electroscope was employed to measure the ionization produced by the radioactive substance.

Rutherford and Soddy developed the theory that atoms of radioactive substances constantly undergo spontaneous disintegration². The radium atom disintegrates with the expulsion of an alpha particle and the residue of the atom forms an atom of radium emanation or radon. The alpha particle is known to be a doubly charged positive atom of helium with an atomic weight of 4. Radium emanation is a gas and is proportional to the quantity of radium present. The equilibrium amount of radium emanation with one gram of radium is termed a curie and has a volume of 0.6 cubic millimeters. The total radiation of one millicurie of emanation is equivalent to approximately 133 millicurie hours of continuous radiation. Radium emanation undergoes a radioactive change with the loss of an alpha particle and the production of an atom of Radium A, which in turn loses an alpha particle with the production of Radium B. Radon is the name suggested in 1923 by the International Committee on Chemical

Elements to replace the term "Radium Emanation".

Radium B and Radium C are the sources of the therapeutic rays which are the beta and gamma rays. The beta rays or particles are single negative electrons and in their escape from the atoms of Radium B and Radium C produce high frequency electro-magnetic waves, the gamma rays. The gamma rays are analogous to X-ray, ultra-violet and visible light, differing from these, however, in having a shorter wave length.

TABLE I

URANIUM-RADIUM SERIES (3)			
Substance	Atomic Weight	Time to Decay to Half Value	Radiation Emitted
Uranium 1	238	5 billion years	alpha
Uranium X ₁	234	24.6 days	beta and gamma
Uranium X ₂	234	1.15 minutes	beta and gamma
Uranium 2	234	About 1,000,000 yrs.	alpha
Ionium	230	About 100,000 yrs.	alpha
Radium	226	1680 years	alpha
Radium Emanation (Radon)	222	3.85 days	alpha
Radium A	218	3 minutes	alpha
Radium B	214	26.8 minutes	beta and gamma
Radium C (99.97%) (0.03%)	214	19.5 minutes	Alpha beta gamma
Radium C ₂ (0.03%)	210	14 minutes	beta and gamma
Radium C ₁ (99.97%)	214	0.000001 seconds	alpha
Radium D	210	16.5 years	soft beta
Radium E	210	5.0 days	soft beta
Radium F (Polonium)	210	136 days	alpha
Radium G (End Product Lead)	206		No rays Atoms stable

There is a wide difference in the penetration of the alpha, beta and gamma rays. The alpha rays will not penetrate a thin sheet of writing paper and are absorbed by three centimeters of gaseous air. The beta rays are screened off by two millimeters of lead or brass. The gamma rays will penetrate 10 or more centimeters of lead. The beta ray is 100 times more penetrating than the alpha, and the gamma 100 times more penetrating than the beta. As to quantity, the alpha rays compose 90 per cent, the beta 9 per cent and the gamma 1 per cent of the radiations.

The source of radium in this country is from carnotite ore, which is found in Colorado and Utah. The ore contains from 2 per cent to 5 per cent of uranium oxide and yields 3 to 15 milligrams of radium per ton. The Belgian mines in Congo, Africa, yield ores considerably richer than the American supply.

It is interesting to note briefly the process of extraction of radium from the ores. To 1,000 lbs of ground ore is added 500 lbs of concentrated hydrochloric acid and allowed to cook for one hour. The liquid contains radium barium chloride and vanadium uranium chloride. The by-product vanadium is used in hardening steel. The radium and vanadium are separated by the addition of sodium sulphate which precipitates the radium in the form of radium barium sulphate and is converted into radium barium car-

bonate by the addition of sodium carbonate. The final separation may be affected by fractional crystallization. The radium barium carbonate is converted into radium chloride and barium chloride by the addition of hydrochloric acid, radium chloride being less soluble than barium chloride.

TABLE II

THE AMOUNTS OF RADIUM THAT ARE CONTAINED IN CERTAIN PURE RADIUM SALTS

Name of Salt	Chemical Formula	Weight of Salt per 100 mg of Radium	Weight of Radium in 100 mg of Salt
		mg	mg
Radium Bromide, Crystallized	$\text{RaBr}_2 \cdot 2 \text{H}_2\text{O}$	187	53.6
Radium Bromide, Anhydrous	RaBr_2	171	58.6
Radium Chloride, Crystallized	$\text{RaCl}_2 \cdot 2 \text{H}_2\text{O}$	147	67.9
Radium Chloride, Anhydrous	RaCl_2	131	76.1
Radium Sulphate	RaSO_4	142	70.2
Radium Carbonate	RaCO_3	126	79.0

The International Radium Standard consists of an hermetically sealed thin glass tube containing 21.99 milligrams of pure radium chloride, which was prepared in 1912 by Mme Curie, and approved by the Congress of Radiology and Electricity. It is preserved in the Bureau International des Poids et Mesures at Sevres, near Paris. A second standard which has been most carefully compared with this is kept at Vienna. The United States Radium Standard contains 15.44 milligrams of radium and has been compared with the International Standard, and also with the standard at Vienna.⁴

Biological Effects of Radium

The effects produced by the action of the radium rays on the skin were first recorded by Walkoff in 1900, and shortly afterward by Giesel.⁵ However, radium treatment did not receive its initial impetus until after the famous "Becquerel burn" in 1901. Becquerel placed a tube of very active radium in the pocket of his waistcoat where it remained for several hours. Two weeks later a severe inflammation of the skin appeared, which was attributed to the action of the radium. Curie then made an experiment on himself, and loaned a specimen to Dabolo of the Saint Louis Hospital, Paris, for medical purposes. Williams of Boston, and Abbe of New York, were the first American physicians to use radium with any degree of success. Abbe's first article "Radium and Radio-activity" was published in 1904.

The difficulties in radium therapy at first were the limited supply of radium available for medical purposes and the lack of a suitable accurate method for standardizing radium preparations.

Radium emanation tubes or applicators in the form of a source of therapeutics have been used first at the Radium Institute in Paris. The use of radium in the form of plaques, employed. The

technique used depends upon the skill and experience of the operator. Different methods will often produce the same end-result. Progress in radium therapy depends upon the development of our knowledge of the physics and chemistry of radium and a better understanding of the life history and structure of neoplasms.

A radium plaque 2 centimeters square and containing 10 milligrams of radium is commonly used. Both beta and gamma rays are available in an unscreened plaque, the proportion being about 9 to 1. By covering the plaque with a lead screen 2 millimeters thick the beta rays are screened off. In dermatology, in which radiation within 1 to 5 millimeters in depth is required, the plaque is invaluable. The application of the 10 milligram half strength radium plaque to the skin will produce an erythema in ten minutes, and an erythema and temporary epilation in fifteen minutes. A one-half hour exposure will produce a heavy reaction with exudation and result in a permanent epilation.

Radium needles contain usually 5 to 10 milligrams of radium each. A convenient type of needle is 20 millimeters in length, has an external diameter of 1.25 millimeters and a wall thickness of 0.2 millimeters platinum. The advantages of radium needles are that they may be inserted directly into tumor tissue giving off radiation in all directions and not affecting the normal tissue to any great degree. The 0.2 millimeters of platinum will reduce the beta radiation to approximately 1 per cent, and, therefore, the radiation is almost entirely that of the gamma ray.

Radium needles are inserted into tumor tissue approximately 1 centimeter apart and allowed to remain from two to eight hours, depending upon the radiosensitivity of the tissue. For insertion in body cavities radium needles may be grouped in brass or platinum capsules 3 centimeters long and having an external diameter of 0.5 centimeters.

Radon in glass ampoules are used for intratumoral radiation and consist usually of 0.5 to 1 millicurie each, and are about 3 millimeters long and 0.3 millimeters in diameter. The ampoules may be sterilized by boiling and inserted into a sharp end of a sterile needle with a plunger at the other end. The needle should be withdrawn a few millimeters just before the plunger ejects the ampoule, so that the radon may rest in the cavity thus formed. Intense beta radiation plus gamma radiation is obtained from radon implants, and a small zone of liquefaction necrosis is produced around each implant. In resistant localized neoplasms where caustic effects are indicated radon is invaluable.

Recently radon implants have been screened with 0.2 millimeters of brass or platinum. This procedure reduces the intensity of the inflammatory reaction and the area of complete necrosis. The effect of the screened radon is mainly that of

the gamma ray and similar to that of the screened radium element. Deep seated neoplasms are usually inaccessible and too extensive for the application of interstitial irradiation. External radium packs at a distance of 3, 5 or 10 centimeters are used, depending upon the depth of the tumor. Large amounts of radium are necessary for this procedure thus limiting its use. Combined irradiation with radium packs and deep X-ray retards the activity of the growth and prolongs the life of the patient.

Bergonie and Tribondeau have stated that tumors composed of rapidly multiplying cells, especially those of the lymphoid group, are highly susceptible to irradiation and in such ratio as to the above characters are developed. Lymphosarcoma, tuberculous adenitis, lymphatic leukemia, angiomas, embryonal carcinoma of ovary or testis and basalcell epidermoid carcinoma are grouped as radiosensitive. Osteosarcoma, squamouscell epidermoid carcinoma and fibrocarcinoma are relatively radio-resistant.

Within two or three days following a radium application to an erythema dose there is noticed on microscopic examination a swelling of the cell bodies and a hyperchromatism of the nuclei. During the second and third weeks the cytoplasm undergoes liquefaction, the cell membrane ruptures and the nuclei become broken up. An inflammatory reaction is present with a serous exudation and infiltration of lymphocytes. During the fourth week there is a formation of new capillaries and granulation tissue. The end-result of the process is the formation of dense fibrous tissue which replaces or encapsulates tumor cells and acts as a protective barrier to their dissemination.

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THE HERALD OF THE MEN OF DEATH *

By THOMAS F REILLY, M D,
NEW YORK CITY

IN order that we may make clear the title of the paper, it is necessary to state that a herald is one who goes before the king to announce his coming, and as it were to introduce him and to make straight his path. Osler has nominated Pneumonia as the "Captain of the men of Death," because Pneumonia is the commonest disease present as a fatal termination in illnesses of all kinds. This Pneumonia is by no means always Lobar Pneumonia, but is most frequently, at least at the present time, a typical Influenza Pneumonia, which in the last analysis is a catarrhal Pneumonia, so that in a very large proportion of cases Influenza is not only "Herald," but "Captain" of the men of Death.

On another occasion, we have pointed out the relation that exists between cardiac decompensation and attacks of Influenza. Formerly, pathologists considered the so-called chronic diseases as progressively spreading processes, much as a cancer spreads, but our present concept is that chronic bacterial disease only spreads by a series of acute attacks. We have pointed out that the most common attacking agent after the field of infection has been prepared by Rheumatism, Syphilis or Arterio-sclerosis, is the Influenza organism, or an infection of some kind associated with the symptoms and signs commonly attributed to Influenza.

The great cardio vascular renal group of diseases, comprising as it does sixty per cent of all

chronic disease in adults, is so commonly stirred up by this influenzal agent that one might well consider influenza as the chief terminal infection in this group. This concept eliminates barrels of digitalis, so commonly administered at present in the treatment of what is in reality an acute endocarditis, the belief being general that decompensation is somehow or other the cause of the fever, when as a matter of fact the decompensation is mostly the result rather than the cause.

A similar condition of the mucous membranes is to be noted at the onset of most hemiplegias. In the final analysis, the stroke is usually a vascular accident, and is analogous to an attack of cardiac decompensation. In most hemiplegias, if one will look at the mouth and throat of the patient, an exact replica of the mouth of a person suffering from broken cardiac decompensation with influenza is revealed. This patient, just as the cardiac, will deny that he is or has recently been the victim of a head cold, until one points out the manifestations in the mucous membrane, and thus proves the picture to his friends.

The great question will always be raised as to why the patient, who felt so well when he went to bed last night, wakes up this morning with a hemiplegia. His heart, arteries or kidneys may have been damaged for years, but they were no worse last night than they were months ago, but why did the catastrophe happen last night? The answer, we believe, is that within a day or so he contracted the influenzal infection, which just ripened or exploded or invaded the blood stream.

* Read at the Twenty seventh Annual Meeting of the American Therapeutic Society, Atlantic City, May 22, 1925.

last night and alighted on an already damaged vessel and produced the lesion either of thrombosis or of hemorrhage. As to which of the two latter pathological conditions occurs depends on his particular family history, whether it was that his ancestors readily developed a thrombosis, or hemorrhage, rarely embolism.

From the heart and vascular system it is only a step to explain a similar train of infection in damaged kidneys. Here again the lesion is often a vascular one. In a series of cases of decompensating kidneys we have been struck by the usual story of the patient that he had a head cold for the week or more preceding the onset of kidney symptoms. The same is true in at least some cases of eclampsia. The onset of diabetic coma has in our experience been often ushered in with the evidence of influenza in the mucous membranes. The universal accompaniment of influenza at the commencement of encephalitis makes it difficult for one to believe that the encephalitis is not really a form of influenza, or else that influenza in some way paves or heralds its appearance and prepares the way for its onset. It would appear that most of us are hosts of the influenza organism, which for long periods remains dormant, and that at certain times, and under certain conditions, the organisms become active. Probably nervous shock, as well as a physical shock, may be the exciting agent, but this leads us to theorizing, and inasmuch as our contribution is merely to call attention to the relation of lethal disease with the presence of the signs of so-called influenza in the mucous membrane, signs that are exactly the same that we meet with in unquestioned influenza, and which are present at the onset of most of the infectious disease processes that occur in the human body, we do not feel warranted in being positive in this matter as to the how of activation.

The frequency with which sore throat is followed by appendicitis within a few days, long ago led Rosenow to predicate that the germs were dormant in the teeth or tonsils, and he has successfully proved his contention that there is a chemotactic attraction between the germs at times present in the throat and inflammatory attacks of the appendix, gall bladder, and the upper portion of the gastric tract. His attempt to settle on the particular germ is not so clear, any more than that we do not know the germ of influenza. Or witness the symptoms preceding the onset of the gastric or duodenal ulcer syndrome, or the multitude of gastric complaints which simulate the ulcer syndrome, but of the exact diagnosis of which we cannot be quite sure, in some respects the opinion favoring gall bladder disease, in others appendicitis, and yet in others simulating gastric ulcer. In most of these patients a close inspection of the mouth will, a few days before, or in the early part of the affection, reveal unmistakable signs of influenza. The layman is

accustomed to say, 'I think I have taken a cold in my stomach.' Everyone will have noted the great frequency of digestive complaints in those who have had a mild attack of influenza. This association of influenzal signs of the mucous membrane, to be described, preceding the recurrent attack of stomach distress, and which signs persist to some degree as long as the attack itself, adds much interest to an otherwise dull case.

The belief that appendicitis, so common now as compared to the past, is not due to better diagnosis, as many assert, but that it really appeared in a widespread form in this country following the influenza epidemic of 1888-1889, is widely held. Certainly now it is a widespread disease, and the increase must be evident to everyone. Each of the great influenza epidemics seem to be followed by the relighting of a certain special type of disease, the present one by the incidence of encephalitis, by high blood pressure, by hyperthyroidism, and possibly by diabetes. I am sure everyone, during the past six years, has noted the great increase of diabetes. It is not due to better diagnosis, as we were quite as careful in making sugar examinations twenty-five years ago as today. Certainly the same routine is in use that was prevalent when I was a house physician more than a quarter of a century ago, when the disease was relatively uncommon, and the question may well be asked, why the great increase of diabetes? Blood pressure estimations, while not so general before, have been consistently done during the past twelve years, and yet there is, even in the time elapsing since the influenza epidemic and the present, a huge increase in high blood pressure cases. I have felt that a similar relation may often be made between the influenza and hyperthyroid activity.

How common to hear the statement of the tubercular patient that he has caught a fresh cold, while we smile in a superior sort of way. Often, however, if we watch his temperature and the course of three and a half days of fever, etc., mouth signs, etc., in many instances we must conclude that influenza serves to relight the quiescent Koch.

The present epidemic does not seem so prone to relight tuberculosis as did the 1888 epidemic, yet the history and signs of epidemic influenza, originating afresh or relighting up of a quiescent case, is sufficiently common to arouse one as to its presence, even in the present epidemic.

Among the less lethal disease syndromes that appear to be relighted up by this ubiquitous organism are the following. Many of the periodical attacks of so-called nervous prostration will, if rectal temperatures be taken, show from a half to two degrees of temperature, with characteristic signs of influenza in the mouth. Since noting the connection between attacks of so-called neurasthenia and influenza, the treatment of the latter condition has ceased to be a bore, and it

establishes a new interest in the patient. Especially is this true of the neurasthenia plus weakness developing without cause in a middle-aged or elderly person. In most of such patients the rise in temperature, the eye signs, and a few others will serve to identify the disease. Tonics are wasted on such patients unless they are given after the absolute termination of the disease.

Frequently the story as given is that the patient has had a mild head cold or influenza lasting a few days, and then has developed a complete neurasthenic syndrome, which is charged up to the after effects of the influenza, because the pulse seems normal and the temperature is not taken by rectum but by mouth, and is found to be normal or nearly so. If perchance it is taken by rectum and found to be $99\frac{1}{2}$ or 100, the usual heresy is proclaimed that this elevation is normal and is accepted, and the fact that the patient does not complain of his throat, in fact denies that he has a head cold, induces one to neglect to look into the throat, and so the case is dismissed as being the *after* effects of influenza. Meanwhile, the patient is discouraged, and after trying three or four doctors, about the sixth week falls into the hands of a chiropractor or Christian scientist, and lo, and behold, after a timely visit or two he finds that his sweatings have disappeared, his fears are dissipated, his memory weakness has disappeared, and life again becomes rosy. Who can blame the patient for associating cause and effect? Yet had he been told at the outset of his head cold or influenza that it would take from six to eight weeks before complete recovery would take place, it is not too much to hope that he would have been reconciled to his condition. As it is, he is constantly bemoaning his fate that he did not meet the healer at the beginning of his illness. Incidentally, if I were a chiropractor or healer, I would refuse to take any case until all others had failed, or that at least five weeks had elapsed from the onset, and then glory would be mine.

The presence of the mucous membrane syndrome before an attack of so-called lumbago, before hemorrhoids, phlebitis hemorrhages under the conjunctiva mental disturbances in the aged, as well as at the onset of a host of other disease conditions, may be confirmed by anyone who takes the trouble to look at all of the visible mucous membranes with a critical eye.

I have often felt that an influenza preceded attacks of pyelitis. The objector will say that the same general type of symptoms described as influenza are in a general way present in all infections, and this is true, but here, unlike the other infections, the symptoms never last more than a few days, while the course of the disease is regularly active, in influenza, for three and a half days, and recur for long periods, always indicating their associated mucous membrane fondness, both in the chest and in the mouth.

Many other symptom groups, such as sudden periods of weakness, attacks of dizziness, ill temper, etc., lasting approximately three days, and which occur with some degree of periodicity, and which have often been ascribed to a cyclic cause, have so much in common with the influenza syndrome that a possible connection may at least be suspected.

It is true that there is no certainty as to the agent or organism causing influenza, and one can only surmise its presence by the incidence of the same sort of marks such as occur in the great attacks of influenza, as well as the exact replica of the same in the so-called common cold. How can one distinguish between cold, influenza and grippe when he notes certain mouth signs, presently to be described, in the mouth of the child whose parents assert that he has only a slight cold, yet a day or two later the mouth of his father presents an exact counterpart of the child's mouth, but the father dies in a week or so and the certificate is signed as a death due to influenza.

These signs are as follows

- (1) Injection of the external borders of both conjunctivae,
- (2) Purple lips,
- (3) Enlargement of the mouth of stensons duct and a red puncta at the summit,
- (4) Redness of the anterior pillars of the fauces, either half-way up or encircling the fauces,
- (5) Papules on the uvula,
- (6) Sago grain appearance of upper portion of soft palate,
- (7) Hemorrhagic exudation in various parts of the mouth,
- (8) A rise of from one-half to two degrees of temperature (per rectum)

Closer study of these phenomena inclines one to the suspicion, although not to a certainty, that for the vast majority of people one influenza always influenza. This view is corroborated by the following facts. In a large part of the population the disease regularly recurs every thirty-two to thirty-three weeks, or multiple thereof, occasionally, it recurs at sixteen-week intervals, (2) there is an almost simultaneous attack often of a similar syndrome throughout a large community, often occurring at the same hour many miles apart, where there was no opportunity for contact. These facts will not be noted unless one goes over and checks up accurately the last attack by means of history card. Such recurrences are less severe as a rule in the summer, and for that reason summer rarely causes the filing of a death certificate for a cardiac or a nephritic.

When one asserts that upward of seventy-five per cent of all patients have had well-marked influenza, and that once present they are likely

ever after to remain host to such organism, the objection will be raised that in any event three-quarters of all mouths inspected at any time of the year will show one or more of these signs. This is true in a measure, but in the absence of symptoms of influenza it is uncommon to find three or more signs such as one sees in a frank influenza. This statement may be met with the observation that under certain unknown circumstances and at certain times the mouth and throat infection becomes active and is responsible for symptoms. This may be confirmed by the three and a half day rise in rectal temperature, as well as by the three and a half day run of symptoms, relief and recurrence. This three and a half day temperature is so characteristic that the wonder is that it has not crept more generally into the text books.

In studying head colds, it is interesting to note (1) that the infection may be dormant for a period of one or more weeks before exploding, (2) that a severe spell of three and a half day

fever may occur after two or three weeks of illness, even though the first or second spell of three and a half day discomfort was so slight as to be negligible. Unaccustomed constipation is a quite common symptom in early influenza, (3) the nature of the attack may change, say, at first, being a digestive upset followed by weakness, and on the third or fourth period attack the mucous membrane in the old-fashioned way, (4) that as long as a half degree of temperature lasts the disease is still active, (5) that the so-called post influenzal weakness, etc., really represents a cycle of the active disease itself, (6) that whatever portion of the body is already the seat of chronic disease, that portion is likely to be relighted up by the influenza.

After viewing such a grouping, the natural reaction of the reader is to consider that the author is obsessed with the idea of the universality of influenza, none the less does the speculation become attractive as a solution for age-long problems.

THE MANAGEMENT OF SYPHILIS COMPLICATING PREGNANCY *

By ALFRED C. BECK, M.D.,

BROOKLYN, N. Y.

THIS study is an analysis of 131 pregnancies that occurred in 113 syphilitic women. In each instance the Wassermann was strongly positive on two or more occasions and other unquestionable evidences of syphilis were present. In this review therefore, no cases are included in which the diagnosis was based solely upon the serological findings.

DIAGNOSIS

The history of symptoms and the physical examination were of little service in making the diagnosis. Four patients gave a history of a primary lesion and sixteen described one or more of the secondary manifestations of syphilis. The history itself, therefore, was of value in a total of twenty cases, or 17.7 per cent of our material.

The patient's account of her previous pregnancies was of much greater aid. Seventy-one of the 113 syphilitic women included in this series had been pregnant before. Of these, 45, or 63.3 per cent, had previous miscarriages and stillbirths. Other children were found to have syphilis in 24, or 33.8 per cent, of these multiparae. Contrary to the usual opinion, 26, or 36.6 per cent, had no previous miscarriages or stillbirths, and all of their pregnancies resulted in the birth of living, viable infants. Some of these women had given birth to several full-term living infants which, according to their mother's statement, had always been well. Upon investigation, we learned that most of these children had

syphilis. We, therefore, cannot rule out syphilis when a patient tells us that she has never had a miscarriage or stillbirth, that her pregnancies always went to full term, and that all of her children are living and well. We must rule out congenital syphilis in these children before we may assume that the patient was free from syphilis at the time of her previous pregnancy.

The routine Wassermann test was of inestimable value in our work. Whenever a patient's blood was strongly positive the test was repeated in order that we might eliminate the possibility of a laboratory error. *In our opinion, a strongly positive reaction usually is indicative of syphilis, even though the patient is pregnant.* While we admit that occasionally a patient's blood may be strongly positive during pregnancy and may become negative after delivery, even though no treatment be given. In our experience, however, this observation has been extremely rare. We, therefore, treat all of our cases vigorously whenever the Wassermann is strongly positive, even though no other evidence of syphilis is present, as we have found that investigation of the husband and the other children, as well as subsequent events, usually proves that the patient has undoubted syphilis.

The husbands in twenty-three instances were syphilitic at the time of their wives' pregnancies. In our clinic material, it was extremely difficult to secure the cooperation of most of the husbands. Many of them refused to permit their wives to take treatments or even visit the prenatal clinic after they learned that we had ob-

* From the Department of Obstetrics and Gynecology of The Long Island College Hospital.

tained blood for the Wassermann. Had better cooperation been obtainable, we probably would have found evidence of syphilis in a larger percentage of the husbands.

TREATMENT

As soon as the diagnosis was made, vigorous antisyphilitic treatment was begun, irrespective of the period of gestation. Six intravenous injections of salvarsan were given at weekly intervals. Intramuscular injections of mercury were started at the same time and continued for twelve weeks. If after this course of treatments the Wassermann remained positive, a second similar course was given. Occasionally, the reactions were severe, in which case the dose was diminished.

All infants were referred to the department of pediatrics immediately after birth. They received daily mercury rubs for two months. If the Wassermann was then negative no further treatment was given, unless evidence of syphilis appeared. The infants of the patients who had not received sufficient prenatal treatment and those in whom evidence of congenital syphilis was observed were treated more intensely. In these latter cases, 0.5 c.c. of mercury oxycyanate was administered weekly for six weeks, at the end of which time intramuscular injections of salvarsan were begun.

END RESULTS

In considering the end results, I have grouped the cases according to the amount of salvarsan administered before delivery.

In group (1) the patients received no salvarsan before delivery, 24 cases of this type are included in our study, 12 of these pregnancies resulted in stillbirths, and 7 of the remaining living infants showed evidence of lues, 5, or 20.8 per cent, of the 24 untreated syphilitic women gave birth to living infants, which up to the present time appear to be free from syphilis.

Group (2) contains those cases in which some salvarsan was given, but the total amount was less than that given in our usual course of treatment, 37 patients received from one to five injections of salvarsan, 24 of these gave birth to apparently non-syphilitic infants, 6 pregnancies ended in stillbirths, and 7 resulted in the birth of syphilitic infants. Even in the cases of these seven syphilitic infants the prenatal salvarsan was of distinct benefit, as the congenital syphilis has been easily controlled.

Group (3) is made up of those cases which received six or more injections of salvarsan during pregnancy, 58 of the 70 patients so treated gave birth to living infants which have never shown any evidence of syphilis. (Some of these infants have been under observation for six years.) Of the remaining 12 cases, 6 had stillbirths and 6 living syphilitic infants.

According to this grouping, living non-syphilitic infants were born to 5, or 20.8 per cent, of the

untreated syphilitic women, to 24, or 64.8 per cent, of the inadequately treated, and to 58, or 82.8 per cent, of the 70 well-treated syphilitic mothers.

In a previous report of thirty-two cases the same plan of analysis was followed, and after four years only two changes are required in the end results therein given. In each of these instances, apparently non-syphilitic infants later showed signs of lues. One died of syphilitic meningitis when it was three and a half years old. Prior to the onset of this condition, its Wassermann had been persistently negative. The other showed no signs of syphilis until it was four years of age when its Wassermann became strongly positive. Aside from this sign, no other stigmata of syphilis have appeared. These two most interesting observations lead us to be very cautious as to the prognosis when no stigmata are found during the first few years of the life of a child born to a syphilitic mother. Only careful observation over a long period of time will lead to an accurate opinion as to the prognosis in these cases.

SUMMARY

History and physical findings aided in the diagnosis in only 17.7 per cent of our cases.

Sixty-three and one-third per cent of the women who had been previously pregnant gave a history of miscarriages and stillbirths.

Twenty-six unquestionably syphilitic multiparae carried all of their previous pregnancies to the period of viability and gave birth to living infants (36.6 per cent).

Other children were found to have syphilis in 24, or 33.8 per cent, of the multiparae.

Syphilis cannot be ruled out when a patient states that all of her children are living and well.

The Wassermann reaction is a most valuable aid in the diagnosis of pregnancy syphilis.

The so-called false positive Wassermann due to pregnancy usually is real, and other evidences of syphilis can be found if a careful investigation is made.

Salvarsan should be given as soon as the diagnosis is made, irrespective of the period of gestation.

Even the inadequately treated patients gave birth to a large percentage (64.8 per cent) of apparently healthy infants.

Eighty-two and eight-tenth per cent of the well-treated cases had living infants which have shown no evidence of syphilis.

Prognosis as to these apparently non-syphilitic must be guarded. Two of our infants showed the first signs of syphilis at the ages of three and a half and four years, respectively.

(I wish to acknowledge my indebtedness to the Genitourinary and Pediatric Departments of the hospital for their splendid cooperation in the care of these patients.)

DIABETES MELLITUS—RESULTS OF INSULIN TREATMENT IN A SMALL CLINIC

By G M PARKHURST, M D,

BATH N Y

After the release of Insulin to the profession at large, a small diabetic clinic was organized at the Bath Hospital in order to give our local cases the benefit of Dr Bantings discovery. Many excellent reports and case records have come from the splendidly equipped large city clinics during the past two years. However many localities are not conveniently near such a clinic, and, as the number of diabetics increase, the smaller hospitals and the country physician must meet the question of scientific Insulin treatment. For this reason it has seemed worth while to give a summary of our results and method of caring for these cases at the Bath Hospital.

As a primary step we equipped our small hospital laboratory with materials and colorimeter for doing our own blood-sugar estimations. The necessary equipment for qualitative and quantitative urine sugar and for testing for acetone and di-acetic acid was already at hand. Two of our hospital nurses were given intensive training in dietetics, with special reference to diabetes and were assigned to attend these cases only.

The average stay in hospital for all cases was ten days. A routine blood-sugar was done on admission, to check up the relative severity of the case, and also eliminate a possible renal glycosuria. This initial blood sample was taken one hour after the first measured breakfast. A final blood-sugar was done routinely the day of discharge, the specimen being taken one to two hours after breakfast. Several of the more severe cases had more frequent blood-sugar estimations, but as a routine only the two were done. In addition daily qualitative and quantitative sugar tests were made on the twenty-four hour urine specimen, with tests for acetone and diacetic acid. The aim of treatment was to secure, at discharge, a well balanced diet with twenty-four hour urine sugar free and blood-sugar reading of less than 0.14.

All diets were carefully calculated and measured, the routine initial test diet containing 50 grams of carbohydrate, 1 gram of protein per kilo of patients weight and fat varying from 75 to 135 grams, depending on the amount of acidosis present. The patients were given lectures regarding diet, food values and methods of weighing and calculating their daily quota. In addition a printed booklet containing all this data was given each patient. All cases were discharged with a diet calculated to cover their basal requirement plus 15 to 30 per cent depending on whether they

were returning to a sedentary life or to active work.

Up to February 1, 1924, eighteen cases had been treated, the appended chart showing the grade of severity, diet at time of discharge and present diet, if known, also insulin dosage on discharge and at present time. The present diet is charted as approximate, since practically all cases have lapsed from accurate measuring of foods to the easier method of approximating the amount in household measure. However, this has apparently had no adverse effect, and the figures given for present diet, while not accurate, are probably fairly close to the mark.

The results in our eighteen cases may be summarized briefly, as follows:

(1) Four cases (No 4, 16, 17, 18) have died, two directly from their diabetes. (2) Four cases have passed from observation (No 2, 5, 10, 12), all failing to report after leaving the hospital or at best reporting once or twice. The results in these cases will probably be bad. (3) Three cases (No 6, 13, 15) are listed as showing no change. Their tolerance has not improved and they are existing on the same diet and insulin dose that was given them when discharged from the hospital. Two of these cases were classed as mild and one as severe. None of this group has apparently lost tolerance. (4) Three cases have improved moderately (No 7, 8, 11). Each one of these has been able to keep their original diet or increase it slightly and at the same time reduce their dosage of insulin. This group remain well and sugar free. One case was listed as severe, one moderately severe, and one very severe. (5) Three cases (No 1, 9, 11), have shown great improvement. Their tolerance has increased to such a degree that they have been able to eliminate insulin entirely and are sugar free on an ample but restricted diet. Of these cases two were classed as mild, and one moderately severe. (6) Case 14 has been very unsatisfactory. She has a very severe diabetes, being held sugar free only by extreme dietary restriction (P-54, F-120, C-37), and 20 units of insulin twice a day. However, she constantly breaks over the diet and as a result is gradually going down grade.

Since February 1, 1924, we have had eight additional cases with essentially the same general results. While only one-third of the cases can be rated as improved, no single one who has really cooperated and remained faithful to diet and insulin has lost tolerance so far as we can determine.

EDITORIALS

The Medical Society of the State of New York is not responsible for views or statements, outside of its own authoritative actions published in the JOURNAL. Views expressed in the various departments of the JOURNAL represent the views of the writer

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Editor-in-Chief—ORRIN SAGE WIGHTMAN, M.D.,

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For list of Officers County Medical Societies, see this JOURNAL, advertising page xvi

RESIGNATION OF THE COUNSEL

Mr George W. Whiteside has resigned as Counsel of the Medical Society of the State of New York in order to enter the firm of Chadbourne, Stanchfield & Levy. He has been the legal advisor of the State Society since September 1, 1920, and has conducted the legal defense of our State members who were involved in malpractice suits. He has guided the officers and

committeemen through the mazes of the laws applying to their official acts, and has been the friend of the medical members of the State Society in the times of their legal troubles. His doctor friends regret his resignation, but congratulate him on the greater opportunities in his new field of work.

THE CORNELL CLINIC

The clinic or dispensary of the Cornell University Medical College conducted in the College building at First Avenue and 27th Street, New York City, is designed to give medical service on a self-supporting basis to persons of moderate means. It is commonly known as the Cornell Pay Clinic, because it charges a dollar and a half per visit instead of the usual maximum of twenty-five cents for free dispensary service. It was opened in its present form on November 1, 1921. In three full years of its operation it has received 54,535 patients, who made 340,796 visits, and paid \$650,747 in fees. The Clinic was operated at a deficit of \$84,051. Information regarding the Clinic is contained in two annual reports, and in a report of an investigation of the Clinic made by the Committee on Dispensary Development of the United Hospital Fund of New York—which Committee had underwritten the deficiency in the operating expenses of the Clinic. These three reports fill about 125 pages with interesting reading.

The basis of admission to the Clinic is that the family of the patient must have an annual income ranging between \$1,100 and \$3,000, according to the number of dependents in the patient's family, and the probable number of visits which will be needed. If, for example, a single man with no dependents will require a considerable number of treatments, he will be accepted if his income is not less than \$1,100 or more than \$1,800. If it is less than the lower limit, he is referred to a free dispensary, and if more than the upper limit, he is referred to a physician as a pay case.

The objects of the Clinic, as stated by Dr. Walter L. Niles, Dean of the Medical College, are:

"1 To improve the facilities for the instruction of students, and for scientific purposes.

"2 To assist a large class of persons who, it was believed, existed in the community, who can pay something for medical services, but not the rates usually charged in private offices, particularly when the service of specialists or expensive diagnostic work is required."

Dr. Niles states that the underlying principles of operation have been:

"1 To render the best possible service.

"2 To pay the entire staff, medical and non-medical, for services rendered.

"3 To charge fees which will exactly meet the cost of such services."

The point of view of the physicians of New York City is that the Cornell Clinic is practicing medicine among a class of patients who can pay for medical services, and to that extent is competing with physicians in private practice. The questions of medical ethics and of advertising are also mentioned. In order to understand the viewpoints of both the physicians and the Medical College, the relation of general practitioners to

their patients must be studied. An excellent presentation of this subject is that by Dr. Frank Billings of Chicago, in an article entitled, "The resourceful General Practitioner of Modern Medicine" published in the *Journal of the American Medical Association*, February 24, 1923. The article closes:

"The American family home has been and must continue to be the very foundation of this nation. Bolshevistic socialism, anarchy, and public discord cannot exist in a nation of family homes. The integrity and perpetuation of this nation are dependent chiefly on the maintenance of family life, and the continuance of the family home demands the preservation of the family physician, the general practitioner."

A general practitioner is not expected to know everything about every patient, but Dr. Billings says:

"A diagnosis can be made in fully 80 per cent of all cases by a resourceful general practitioner who will efficiently use his brain, special senses, hands, and an always available simple and inexpensive laboratory and instrumental equipment. He (the general practitioner) should possess and use in routine practice a simple chemical equipment and standardized urinometer for urinalysis, a microscope, blood counter, hemoglobinometer, rectal, aural, and vaginal specula, laryngeal mirrors, head mirror, blood pressure instrument, stethoscope, stomach tube, and an electric light device for transillumination of the accessory nasal sinuses, jaws, and other tissues.

"For the few patients who require laboratory or instrumental tests which involve special knowledge and technical skill in their application, the practitioner should make use of the excellent commercial laboratories, public clinics, and available state, county, and municipal public health laboratories.

"The interest in pathologic physiology has resulted in the elaboration of laboratory and instrumental functional tests in diagnosis which require such technical skill and experience in their application that they are valueless to the general practitioner. Fortunately, these requirements in functional diagnosis are not needed in more than 20 per cent of the patients in any community."

Dr. Billings provides a standard by which the medical profession may estimate the value of the Cornell Clinic. He estimates a considerable proportion of the cases of a family physician—15 or 20 per cent—require more extensive study than a family doctor can give. Patients may be divided into three classes in regard to their ability to pay for the extra services. Those who are well-to-do will pay in full as the physician may charge. The poor will pay nothing, and will patronize dispensaries and hospitals.

The third class consists of those who will pay

for ordinary calls in acute illness, but cannot meet the expenses of a prolonged sickness or of extensive laboratory tests, or a specialist's fee. It is this third class of persons that is the peculiar field of the Cornell Clinic.

The Clinic can render special service to physicians. According to the reports of the Clinic, it has ministered to 7,044 cases that have been referred to it by 2,779 physicians. About thirteen per cent of its cases are those which have been referred to it by physicians. Physicians recognize the value of this service to both themselves and to their patients.

Thirty-seven per cent of the cases that are treated at the Clinic claimed that they had not consulted any physician for their present trouble. This may be interpreted to mean that while some of them may have sought medical advice for some of the symptoms, the doctors have not gone beyond a symptomatic diagnosis. The patients, for example, may have gone to a doctor complaining of "indigestion," and have refused to submit to a thorough physical examination which would have revealed incipient tuberculosis or an infected gall bladder, or chronic appendicitis. The whole truth in these cases is difficult to ascertain, but the evidence inclines one to the opinion that the patients approximate the truth when they say that they have not consulted a doctor for the condition that is diagnosed by the Clinic after a complete examination. It would seem that the Clinic is justified in taking these cases, especially when we consider the public health value of the education of this large number of patients who thereby gain a new viewpoint regarding scientific medicine. These patients would likely be inclined to cooperate with private physicians in the future.

Four per cent of the cases have been under the care of irregular practitioners. The Clinic probably gives these patients a new viewpoint regarding the value of the service which a family physician can render.

The relations of the remaining forty-six per cent of the cases to the medical profession are difficult to estimate, but it is fair to assume that many of them would name a physician as their own if they were required to do so. Evidence that this is so is afforded by the experience of examining physicians in county tuberculosis sanatoriums, who conduct clinics in accordance with the ethics of medical societies. When these physicians examine a case in a clinic, they require the patient to give the name of his family doctor, and if he has none, to choose one. The examiner then sends the report of the case to the doctor, and requires the patient to go to that doctor for information regarding his case. Patients usually name a doctor when the situation is explained to them. The Cornell Clinic also could probably get nearly every patient to name a doctor.

The County of New York has two great medical societies—the County Medical Society and the Academy of Medicine. These are the official representatives of the physicians of Manhattan, and everything relating to medicine in the County is their concern. The Cornell Clinic cannot now retrace its steps and secure the advice of the societies as to how the Clinic could best be planned and established. But is it not possible that the societies could be represented in all matters in which the Clinic is related to the practicing physicians?

There is a growing feeling among doctors that the official organizations of physicians should be consulted in every matter relating to public health. There is also an increasing willingness and desire on the part of doctors to do their share in every phase of the practice of civic medicine. Is it too much to suggest that the Medical Society of the County and the New York Academy of Medicine of New York could co-operate with the Cornell Medical College in working out a plan for conducting the Clinic to the satisfaction of both the medical profession and the College?

SOFT COAL SMOKE IN NEW YORK CITY

Does soft coal smoke concern physicians? Any one living in New York City will necessarily be concerned with the pall of sooty smoke that hangs over the streets, be he physician, or pastor, or common laborer. The laundryman and the window cleaner profit directly, the pastor is alarmed over the increase in profanity, the calls on the throat specialist are increased, and the business of the cough-drop manufacturer is boomed.

New York City, the long-suffering, accustomed to the bad air of subways, to the crowding of the elevateds, to the hurry, and the multitudinous discomforts of life, is strangely patient under the sooty fog, and seems to regard the smoke as merely another annoyance that produces new

thrills, rather than disables anybody. The people of New York are at the same time the most nervous and the most self-controlled of all the Nation. For them the sun always shines behind the smoke cloud, and electric lights readily dispel the gloom, and cold cream the grime.

New York is the Nation's greatest health resort. Its environmental conditions that really affect health—water, food, and sewage—are safe, and in these days, they never produce an epidemic. New Yorkers have full confidence in their physicians and Health Department to protect them from preventable sickness, and they make no complaint about the smoke unless it becomes unbearable.

PREVENTION OF DIPHTHERIA

The prevention of diphtheria is one of the most important modern problems in public health. The available knowledge concerning diphtheria is greater and more complete than that regarding any other communicable disease, and is amply sufficient for almost universal protection against the disease. Not only is there an available serum for curative and preventive purposes for immediate use in the face of danger, but toxin-antitoxin is available for producing a lasting immunity in practically all persons to whom it is given.

The great public health forces of New York State are uniting in a campaign for the immunization of all children with toxin-antitoxin during the next year or two. There are three great organizations, or rather groups of organizations, who are joining in this campaign. First is the Department of Health of the State and of New York City, together with the one thousand or more boards of health of the local municipalities.

Second is the great group of lay organizations that are interested in public health, especially the tuberculosis and public health committees of the several counties.

Third, there is the medical profession, represented by the Medical Society of the State of New York, the county medical societies, and the academies of medicine.

The Departments of Health of the State and the larger cities have demonstrated the practicability and effectiveness of toxin-antitoxin over a period of a dozen years or more. They have standardized and simplified the methods of its administration, and have made its use as easy as the injection of a dose of any other substance hypodermically. They have demonstrated that family physicians can give injections with ease and safety. They have subjected the procedure to tests under every conceivable condition, and are prepared to give it their unqualified endorsement.

The great work of the lay organizations is that of educating the people regarding the immunizations, their value and their safety. School children have been the group in which the greatest number of immunizations have been given, and the teachers, school nurses, and parent teachers associations, and similar societies, have been the principal organizations that have secured the parents' consents for the injections by health officers and school physicians.

The people in the cities and villages have been well instructed regarding toxin-antitoxin, but those in smaller villages and the rural districts are still largely uninstructed regarding the immunity. The instruction of these people is the work of the county tuberculosis and public health

organizations that exist in nearly every county of New York State. These organizations can also provide the financial means for carrying on the immunizations among those who are unwilling or unable to pay for them.

Family physicians are the group on whom the responsibility for giving the immunizations must ultimately fall. Children reach the age of seven years, or the lowest school age, before they receive the benefit of toxin-antitoxin under the present system. There is no ready way of reaching children of the pre-school age, except through their family doctors.

Why are doctors not giving toxin-antitoxin as a routine measure? Among the reasons conservatism and inertia are prominent. A campaign of inspiration is needed in order to arouse the doctors to engage in that form of medical practice as a part of their duty to the families in their care. The customs of medical men are opposed to the idea that they shall plead with people to adopt a medical measure, no matter how good it is. However, a doctor at present is entirely justified in offering the service to his families, and he is not justified in neglecting to provide himself with the material for giving the injections to those who wish them.

Diphtheria immunization has been the subject of several conferences between the representatives of the State Department of Health, the leading lay organizations, and the State Medical Society, with the object of securing the cooperation of the three great groups of organizations along the lines that have been indicated. Each group has its own definite work to do, and if each does its part, it may be possible to realize the ideal set by one lay organization: "No more diphtheria by 1930."

What is the part of physicians in this new movement for the eradication of diphtheria? The movement started by the State Medical Society may properly be taken up by the sixty county medical societies. The leaders in each county society understand medical conditions in their community, and can best arrange the details of a campaign to arouse the interest of the members of the societies. The first step would probably be to promote the immunizations of school children. When the school children have been immunized, it will be a natural step for the doctors to immunize the children of pre-school age.

The conferences on diphtheria prevention constitute a wonderful work of progress in securing cooperation by the three great groups of the promoters of public health. It is to be hoped that the work so well begun will be extended to other fields of medicine.

THE ALTRUISTIC SERVICE OF THE HEALTH OFFICER

Over ten per cent of the physicians of New York State, outside of New York City, are health officers, and over seventy-five per cent of the health officers are active members of the Medical Society of the State of New York. It is therefore of direct interest to a large group of physicians to consider what Dr Matthias Nicoll, Jr, State Commissioner of Health, said about the rewards of health officer service in an address before the last meeting of the American Medical Association which was reported in the *1 M A Journal*, November 14, 1925, under the title, "Some Problems in Public Health Administration." Dr Nicoll said:

"Official health work, fully entered in, by no means enhances the prospects of success in medical practice, but, as shown by experience, actually decreases it. In this respect, the health officer's position is quite unlike that of other administrative officials, whose tenure of office usually entails little or no sacrifice of business or profession. Indeed, many of them derive much benefit from the reputation and association afforded by public service."

Any one who attends the annual conference of health officers of New York State will be impressed with the high medical standards and public spirit of the five hundred health officers in attendance—nearly as many as the number of doctors attending the meeting of the State Medical Society. All these health officers know the truth of what Commissioner Nicoll says about the rewards of health officer work.

Why should any group of physicians practice public health at a personal sacrifice?

What is wrong with a governmental system that penalizes a doctor for performing a necessary public service?

In order to discuss the answers to the two questions intelligently, one must understand the organization of a local health department and the statutory duties of a health officer.

The Public Health Law, Section 21, says that "the local board of health shall direct its health officer in the performance of his duties," and "the health officer shall be the chief executive officer of the board."

The law divides a health officer's duties into two classes: 1, those relating to communicable diseases or the control of all persons and things infected with or exposed to such disease, and, 2, those relating to environmental conditions, such as sewage, water supplies, and the great number and variety of annoying conditions called nuisances.

The Public Health Law, Section 25, places the control of communicable disease matters jointly with the board of health and the health officer, while Section 26 places the control of environmental conditions with the board of health only.

It will thus be seen that the law makes the board of health the supreme power in health matters. A health officer gets into trouble when he attempts to perform the duties that belong to a board of health.

A health officer has two classes of duties to perform as the executive officer of a board of health: 1, scientific, and, 2, police.

The health officer is the advisor of the board in all matters medical and sanitary. He investigates conditions, makes diagnoses, and gives professional advice to the delinquent parties and to the board of health.

If the delinquents fail to act upon the advice of the health officer, then police power may need to be used to compel obedience to the advice.

It is not the duty of a health officer to use police power. That duty belongs to a board of health, and through it to the department of police or of law. Most troubles and annoyances and ill-feelings encountered by a health officer arise from his attempts to perform police duty—a duty which does not belong to him. While politicians are prone to interfere in police duties of a health officer, they hesitate to go contrary to his professional advice. A wise health officer will stick to his professional duties and let the board of health attend to the police duties.

The two questions asked at the beginning of this article may now be answered intelligently. Health officers should not practice public health at a personal sacrifice, and they need not do so if they confine themselves to medical activities and leave police duties to boards of health.

AN APOLOGY

To err seems to be the unexpected lot of all mortals. To guard against mechanical mistakes in printing is the duty of editors, but after all page proofs are read and re-read by the editors, the final make-ready is entrusted to the employees of the printers. The editors regret exceedingly that in finally locking up the forms, the make-up

man crowded two adjoining editorial columns together on the top of page 69 of the last issue, so that no space was left between them, and the lines appear to run completely across the page.

The editors offer their humble apology and explanation to the readers for this last-minute mistake of the printers.

THE ANNUAL MEETING

The Annual Meeting of the Medical Society of the State of New York must necessarily be held on an unusually early date in order to elect delegates at least two weeks before the meeting of the American Medical Association, which will be held April 19-23 in Dallas, Texas. The State meeting will be held March 29-April 1 in the Hotel Waldorf, New York. The hotel affords ideal accommodations for the State Society, as those can testify who have attended the meetings there in previous years. The popularity of the meeting place is shown by the eagerness of the exhibitors to obtain space.

This year's meeting promises to be one of the most interesting that has ever been held. The scientific programs are being developed and plans are under way to hold an exhibit in a specialty

after the plan which was so successful last year in the subject of tuberculosis.

The months which have elapsed since the last annual meeting have been packed full of activities of a wide scope, among which that of graduate education is an outstanding new feature. The stimulating effect of the inspiring work of the Committee on Public Health and Education has been felt in every county medical society, while that of the Special Nursing Committee promises to settle the vexed questions of the efficient training of a sufficient number of skilled nurses to meet the increased demand for the care of the sick as well as to supply the thousands of nurses who are required in the ever-increasing field of public health nursing. The reports of the committees to the House of Delegates will undoubtedly be of greater interest than ever before.

PHYSICIANS' DUTY TO THE COMING LEGISLATURE

Physicians have spent much time and money in finding out that they cannot compete with practical politicians. What they have accomplished has not been due to any political skill or power, but to the respect in which they are held as doctors. Much has been said about what the sixteen thousand doctors of New York State *could* accomplish if they would vote as a unit, and get all their friends and patients to do the same. The fact remains that physicians will not enter the arena of politics, and by the weight of their numbers compel any body of men to adopt a policy which may be reversed at any time that a slight majority becomes a minority. The policies of one set of politicians are in effect so long as fifty and one-tenth per cent of the votes are cast for those politicians, and the opposite policies are in force when one voter in a thousand changes his mind. It is on such extremely slight changes as these that success in any political field often hangs.

It is not to be inferred that doctors have no

influence with members of the Legislature. On the contrary, they have more influence than they suspect. The Legislators know them as men of wide knowledge, good judgment and public spirit. When two or three doctors call on a legislator, and state their arguments, they receive respectful attention, and when a legislator is invited to a meeting or dinner of a medical society, he is deeply impressed.

Is it the work of physicians to secure a flood of telegrams and letters and conduct hearings in support of their measures?

Is it not rather the work of physicians to state the ideals of the profession and the arguments for their adoption, and then leave to the legislators and lawyers the details of making and passing the laws?

While physicians hesitate to overwhelm legislators by political methods, they will always be ready to advise and inform the lawmakers on all medical matters relating to the public.

LOOKING BACKWARD TWENTY-FIVE YEARS AGO

The New York State Journal of Medicine for February, 1901, contains a news item which throws light upon the evolution of health regulations regarding pure milk. "A case of some importance was recently non-settled in the Supreme Court of the Rochester district. A milkman had been using formaldehyde for the preservation of cream. A sample of this cream was taken by the State Department of Agriculture (and found to contain) formaldehyde, approximately more than 1 in 50,000 parts. The law under which this case was brought provides that no unwholesome, impure or adulterated milk shall be sold.

"The plaintiff sought to prove his case by showing the harmful effects of formaldehyde. The judge held that, while experiments (regarding the harm) were most interesting and instructive, the plaintiff had not proven his case, in that he had failed to show that the defendant had the cream and formaldehyde in his possession.

"The interest in the case was chiefly in the fact that it was not defended by the milkman against whom it was really brought, but by a large manufacturing firm selling formaldehyde under the name of a milk preservative, and thus, if the decision stands, will be able to sell its product without hindrance."



MEDICAL PROGRESS



Lipiodol in Radiodiagnosis—Since its introduction a few years ago as an opaque filling material in x-ray examinations, the use of lipiodol has been increasingly evident. It was employed three years ago by Sergeant for the localization of spinal cord lesions (*Proc Royal Soc Medicine*, December 1, 1922). Between 1 and 2 c c of lipiodol is injected into the spinal theca through a suboccipital puncture, the patient being in a sitting posture, the fluid slowly descends until it meets the point of occlusion in the theca, where it is arrested thus defining the upper limit of the tumor. Similarly, the lower limit of the tumor may be mapped out by the arrest of the fluid injected through a lumbar puncture. In a later paper (*British Medical Journal*, 1924, 1, 716) Sergeant said that, with further experience, he considered this method as one of great value and had never had any bad results from its employment. Radovici, Dragonesco, and Georgesco (*Bull et Mem, Soc Méd Hôp de Bucarest*, 27, 1924) report 10 cases in which this method was used with no harmful results. In 4 cases a diagnosis of cord compression was confirmed, in 3 they were enabled to exclude subarachnoid compression which had been diagnosed clinically, in 3 the diagnosis of myelitis without compression of the cord was confirmed.

A. S. Maclaire of New York, on the other hand, has had an unpleasant experience in a case which leads him to the belief that the substance is distinctly irritating to nerve tissue (*Ann Journal of the Medical Sciences*, December, 1925, clxx, 6). The patient was a man aged 37 years, who had had difficulty in locomotion for two years, due apparently to cranial and vertebral injuries sustained eighteen years previously. As a diagnostic measure, lipiodol was injected through both cisterna magna and lumbar punctures. The pre-operative diagnosis was compression fracture of the fourth dorsal vertebra with meningo-myelitic adhesions extending from the eighth to the eleventh dorsal segments. Laminectomy was performed. Five months later the patient returned in a markedly worse condition. A second laminectomy revealed recent dense leptomeningeal as well as meningo-myelitic adhesions, the arachnoid was much thickened, and there was no question that the damage to the tissues had been produced since the last operation. Two arachnoid cysts, one the size of a green pea and the other the size of a kidney bean were found lying opposite the tenth dorsal segment, these contained lipiodol. The results in this case have led the author to abandon the use of lipiodol as a localizing agent in spinal

cord affections. A similarly unfavorable opinion is expressed by William Sharpe and C. A. Peterson (*Annals of Surgery*, January, 1925, lxxxiii, 1) who, believing that the injection of lipiodol into the spinal theca was a harmless method for the localization of spinal block, employed a chemically pure preparation of this substance in three patients. The results were of definite diagnostic value in all cases, but in one case an inflammatory reaction occurred at the site of the arrested lipiodol, the symptoms becoming aggravated to a degree necessitating the removal of the lipiodol at a later laminectomy. Roentgenograms of all three patients revealed unabsorbed lipiodol in the spinal canal, even after an interval of fifteen months following the injection.

Armand-Delille, Duhamel and Marty (*Presse Médicale*, May 14, 1924) called attention to the great value of intratracheal injections of lipiodol in the differential diagnosis of bronchiectasis, basal tuberculosis, pulmonary abscess, and interlobular empyema. The oil is injected by means of a curved trocar and cannula introduced through the cricothyroid membrane. The injection is made under local anesthesia with the patient recumbent. The material does not clog the bronchial tubes, being promptly expelled by coughing as the anesthesia of the trachea wears off. Quite minute dilatations of the bronchi are made visible by this method.

The injection of lipiodol in the diagnosis of bronchial lesions suggested to Carlos Heuser (*Lancet*, November 28, 1925, ccix, 5335) the use of the oil in the diagnosis of pregnancy prior to the fourth month. The technique consists in giving a laxative and, four hours before making the roentgenogram, 20 or 30 drops of laudanum, in order to keep the patient quiet. The vagina is cleansed with formalin soap, the neck of the uterus is brushed with tincture of iodine, and under the most careful antiseptic precautions a metallic cannula is introduced into the uterine cavity until the Bandl ring is passed. Then 1 to 2 c c of lipiodol is injected. The roentgenogram is now taken, and, if possible another 2 to 5 c c of lipiodol is injected and a second roentgenogram is made. The liquid is used warm, without employing much force, and without moving the cannula within the uterus. The lipiodol runs over the uterine walls and penetrates into the tubes if these are free. When the injection has been successfully made, the oil seeps around the fetus, the roentgenogram showing the cavity is occupied. When the fetus is larger, the liquid penetrates very little and in a more or less curved line. If the patient

is not pregnant, the injection of lipiodol will reveal the uterine cavity of triangular shape and at the same time one or both tubes may fill up with liquid. The roentgenogram also makes possible the diagnosis of sterility due to obstruction of the tubes, for it may be observed that they do not fill or fill badly. The injection of lipiodol into the uterus will not cause abortion if proper precautions are observed.

The Surgical Treatment of Bronchial Asthma.—Fukujiro Ishiyama (*Japan Medical World*, October 15, 1925, v 10) reports two cases of bronchial asthma treated by resection of the cervical sympathetic ganglion, in both of which, during the first week after operation, there was marked improvement in the respiratory condition. Within ten days or two weeks, however, the condition was aggravated and there were attacks as before the operation. The author then resorted to Freund's operation, which is based on the fact that in the majority of cases of so-called bronchial asthma, the chief complaint of which is the respiratory difficulty, there is emphysema, and as a result marked distention of the chest wall. This condition naturally hinders recovery from the respiratory difficulties. In order to cure the condition radically the abnormal contraction of the smooth muscles of the bronchi must be overcome so as to allow the lungs to inspire fully. To this end freedom of movement of the chest wall is an important factor. Freund's operation, which consists in the removal of the costal cartilages from the second to the fourth or fifth, relieves the distention and makes movements of the chest wall easier. In seven of eight cases thus treated, complete relief was afforded, and the beneficial effects became more marked as time passed. One patient, however, died of cardiac paralysis soon after the operation. This method of treatment is, of course, merely symptomatic.

G. Hofer, writing on sympathectomy in the *Wiener medizinische Wochenschrift* for October 31, 1925, says that the operations proposed for the relief of bronchial asthma are in need of a searching critique, for it is manifestly difficult to be sure that the operation has caused the disappearance of symptoms when this sequence occurs, since long spontaneous intermissions are not uncommon. From another angle, supposing that the operation of sympathectomy, for example, has succeeded, the asthma may reappear as a result of an intranasal lesion or of anaphylaxis. In the case of nasal asthma an intranasal operation may bring relief but some other factor may start up the patient's difficulty of breathing and Sauerbrush has, at least temporarily, ceased to recommend operation for this condition. Should surgery prevail in these cases it will mean the confession that asthma is largely beyond the resources of the physician. The selection of cases

of asthma which will presumably be amenable to surgical relief must be even more difficult than in the case of angina pectoris.

The Pyretic (Malarial) Treatment of Syphilis and Metasyphilis.—Nonne, the well-known authority on syphilis of the nervous system, has made his contribution to this subject, having now treated about 450 paretics in this manner, with 30 cases of tabes. He discusses (*Medizinische Klinik*, December 4, 1925) the results obtained in 322 followed-up cases of paresis, of which he has cured 30 per cent or nearly 100 individuals now in good mental health and able to support themselves. He does not think that these subjects are liable to relapse. At first he regarded as prognostically more favorable the cases which began with excitement, but at present he includes cases with initial dementia as well, provided treatment is instituted early. This latter is of the greatest influence on prognosis in all patients—the earlier the treatment the better the outlook. Dementia cases of long standing should not be treated at all and in many paretics the resistance is too low for such vigorous treatment although the author gives us no standards of resistance as a guide, nor does he state whether these cases can be recognized before the treatment is started. A paretic inoculated with malaria must be regarded as a very sick man. The author's death rate is low—8 per cent for the 322 cases and none from malaria or even directly from syphilis. Only a pure tertian strain should be used for inoculation and blood tests should be made daily. Flooding of the blood with the malarial parasites shows that treatment should be broken off. No patient is discharged until his blood has been free from parasites for at least three weeks. Quinine, in addition to its control of malaria, exerts a salutary influence on the paresis.

It was inevitable that the success of the malarial treatment of metasyphilis should be an incentive to extend the use of the resource to ordinary syphilis. Scherber has now been experimenting along this line for several years (*Wiener medizinische Wochenschrift*, December 5, 1925). Thus far, however, he has not gone very far away from the treatment of nervous syphilis, meaning by this term the presence of a positive seroreaction in the cerebrospinal fluid. The use of the malaria virus is much preferred over any other form of pyretogenic medication, so that fever treatment becomes synonymous with malaria treatment. Important contraindications must be borne in mind and the author would not use the treatment in any one over 55 years of age. It is contraindicated by any cardiovascular lesion and hence holds out no hope in aortic syphilis. In any case the method is not to be used in a routine way, for it is not only advisable but absolutely necessary that the patient shall have received previously all of the benefit

he can from salvarsan, bismuth, etc. If the disease continues to relapse despite the drug treatment, or if there is a positive spinal fluid reaction or only an unchangeable and strong positive blood reaction he would interpolate the malaria treatment and afterwards resort again to the drug treatment. He would on no account begin treatment with the malaria virus, for in two instances, he noted after this procedure, the development of peculiar periosteal nodes which he attributed to some mobilizing action on an old focus of spirochetes. The treatment largely resolves itself into a cure of such neurotropic cases as might be predisposed to develop metasyphilis. (See also this JOURNAL, January 1, 1926, p. 29.)

Is There a Special Strain of Treponema in Syphilis of the Nervous System?—The view that the cause of nervous syphilis is distinct from that of ordinary syphilis is by no means recent and in fact was first suggested by Morel-Lavallée in 1888, many years before the discovery of the treponema. Following the discovery of *Treponema pallidum*, the theory was propounded of a special neurotropic strain of the microorganism which is responsible for the nervous lesions of the disease, whether these are syphilitic or metasyphilitic. With this theory in mind, Sézary has made a study of conjugal neurosyphilis. He points out that it is not very rare for both spouses to develop neurosyphilis in some form such as meningitis, hemiplegia, paralysis of the cranial nerves or progressive paresis and tabes. The term neurosyphilis is, however, loosely used, for hemiplegia, since it follows an arterial lesion, might be relegated to the group of vascular syphilis, and a similar objection could be lodged against specific meningitis as not originating, strictly speaking, in nervous tissue. Since in conjugal neurosyphilis there are children born after infection of the parents, it should be a simple matter to decide the question by studying the lesions of the inherited cases. While it is true that Nonné has cited a case in which the child also showed neurosyphilis, Margeridon has quite recently demonstrated a similar case in which the child showed numerous ordinary lesions of hereditary syphilis, with the nerve centers quite immune. We overlook the thousands of wives of tabetics, paretics, etc., who show no evidence of neurosyphilis, although evidently infected by their husbands. Again, in a certain number of these cases of alleged neurosyphilis, we find aortitis or late lesions of the skin or mucosæ which cannot be explained by the doctrine of two strains of treponema. Since no other alternative can be even plausibly suggested, the author thinks we shall have to explain conjugal neurosyphilis by simple coincidence, although no figures can yet be quoted to clinch this belief.—*La Presse Médicale*, November 14, 1925

Present Status of the Treatment of Pneumonia by Diathermy—Reviewing his four years' experience in the treatment of pneumonia by means of diathermy, Harry Eaton Stewart (*Clinical Medicine*, December, 1925, XLII, 12) states that he has given some 2,400 treatments without an untoward effect. The application of diathermy brings immediate and almost invariable symptomatic relief, lasting from two to four hours. It may safely be repeated at four hour intervals, although three treatments a day will usually suffice. The average death rate of the treated cases to date was 13.6, while that of the different series of controls ranged between 25 and 42.9 per cent. There is thus an apparent lessening of the mortality, this point will doubtless be definitely established in the near future by reports of sufficient additional cases. Following treatment with diathermy there is usually a fall in temperature by lysis, in only four or five cases in the entire series was there a fall by crisis or semicrisis. The treatment consists in the application of the d'Arsonval bipolar high frequency current directly through the affected area, by the anteroposterior route. The maximum current used is 1,400 to 2,000 ma, five minutes is consumed in reaching this maximum, which is maintained for 20 to 30 minutes. The current is applied by means of flexible plate electrodes about five by seven inches in diameter. Except for the first treatment a somewhat lower amperage is employed—1,200 to 1,400. In streptococcal and other pneumonia there has been only clinical relief, with no apparent reduction of mortality. Postinfluenzal pneumonia of the type that followed the 1918 epidemic has not responded well, although the dry lobular type seen last year was apparently benefited by this treatment.

Lumbar Puncture Headache—The fact that there seems to be no way to predict whether headache will follow lumbar puncture, and no method of treatment when such a complication is suspected, has led Bernard J. Alpers (*Archives of Neurology and Psychiatry*, December, 1925, XIV, 6) to investigate this subject. Observations were made on 91 patients at the Boston Psychopathic Hospital. Lumbar puncture was performed in the usual way and the patient was observed during a period of ten to fourteen days. Large amounts of fluid were removed in order to determine the effect in the production of headache. Of the 91 patients, 16 developed headache. In those cases in which a postpuncture headache occurred there was a marked fall in the spinal fluid pressure after lumbar puncture and the withdrawal of fluid. The conclusion to be drawn is not that in cases with a low initial pressure postpuncture headache is likely to develop, but rather that in cases with a notable disturbance in pres-

sure relations, as indicated by a decided fall in the spinal fluid pressure, a reaction will probably develop. It therefore seemed rational to treat these patients by an attempt to increase the spinal fluid pressure. This was done by the use of pituitrin given intramuscularly (1 cc) and a hypotonic salt solution given intravenously (usually about 100 cc of a 0.5 per cent solution of sodium chloride). In severe cases of lumbar puncture headache, the use of hypotonic salt solution is more beneficial than that of pituitary extract, and the effect on the spinal fluid pressure is also more lasting. The size of the needle is probably an important factor in determining the amount of leakage of spinal fluid. A very fine needle should be used and patients should be kept in bed for 24 to 48 hours, with the head low.

Tobacco Treatment of the Tremor Following Encephalitis Epidemica—Herrmann and Wotke, writing in the *Medizinische Klinik* of December 4, 1925, relate their experience with nicotine in the treatment of the post-encephalitic tremor so often encountered in the somnolent form of the disease. It has long been known that in some patients the smoking of a cigar or even a cigarette will bring these trembles to a stop. The authors therefore, with this aim in view, tested nicotine in the anticipation of a more striking and protracted effect. The tartrate of the alkaloid was first tested intravenously and found in safe dose to be inferior to smoking. Next a decoction was made from cigarette tobacco and the results were found to be equal to or superior to those of the act of smoking. There were two sets of results according as the patient was or was not acutely poisoned by the tobacco. In the mild case the benefit lasted from a few minutes only to several hours, and in some patients there were no results at all. When tobacco was given in toxic doses the effects were much more pronounced, lasting from several hours to 20 days. The safe dose of the extract is from one-tenth to one-fifth of a gram. No practical conclusions are drawn and it would seem as if smoking—or possibly chewing—tobacco is the more practicable way of exhibiting the remedy, even if less powerful than tobacco extract.

The Under-Rested Child—Robert Ewart Ramsay (*Archives of Pediatrics*, December, 1925, xlii, 12) discusses the problem of the restless, crying, peevish, unmanageable child, who is suffering from lack of sleep and rest. Failure to obtain sufficient rest in an age so full of shocks and wonders is sufficient explanation for much that passes by the name of malnutrition and nervousness. The well-defined signs of failure to secure adequate rest and recuperation are failure to gain in weight, fatigue posture and irritability. When in a case of failure to gain in weight, gross errors in diet and hygiene and

gross physical defects have been excluded, it is justifiable to consider lack of rest as a factor. In the treatment of these cases it is usually sufficient to prolong the hours in bed (7 P. M. to 10 A. M.), shorten the hours of school work, limit the amount of strenuous play, enforce a plain and unstimulating diet, enjoin fresh air and pure water. A plain, bulky, nutritious diet, avoiding the concentrated rich foods, especially meat and eggs, will be better handled, promote elimination, and build up a normal appetite. The use of tonics has no place in the treatment of the under-rested child. The maintenance of the fatigue posture over any great length of time constitutes a menace to the health of the child. For the correction of faulty posture, daily building-up exercises should be instituted. The third characteristic of the under-rested child, namely, irritability, is too often fostered by trying to please the child by the multiplication of amusements and distractions. Excitement does not need to be forced upon any child, the developing mind of the child supplies its own excitement. The unstable nervous system of the child needs prohibiting and even subduing influences—a quiet bedroom, sleep in the dark, meals in quiet, toys and books provided but not forced, and protection from admiring friends and doting relatives.

Complexion and Constitution—Ascher writes of the relationship of pigmentation to the physical and mental constitution. Now that the old pseudo science of the somatic and psychic interrelations of mankind has undergone rationalization, it is recognized that the physique not only plays a predisposing role in disease states, as has long been shown, but is of influence on temperament and even character. It should, therefore, be possible to correlate the complexion with the predisposition to disease, the physique, and the mental and character equipment. The author speaks of the three grades of fair, medium and dark skins, hair, and eye color, and associates these with disease and temperament. He cites a few examples, as the delicacy of the skin and mucosæ of the blonde, the pungent secretions and richer milk of the brunette, the predisposition of the dark to liver disease and renal calculi, the relative sexual frigidity of the blonde as compared with the brunette, etc. But even without any special research, it should be possible to add greatly to such data from common knowledge, although some axioms may never have been scientifically verified. Thus, the red-head is commonly believed to be more subject to infections, a florid complexion is often regarded as an unfavorable prognostic sign in early tuberculosis, and red hair is thought to be associated with a quick temper. In races of mixed complexion, the black-eyed are always accused of being more mercurial, passionate, vindictive, etc., than the light-eyed—*Arch. f. Frauenkunde*, vi, 4-5 1925.



LEGAL



By LLOYD PAUL STRYKER, Esq

A BILL TO LICENSE CHIROPRACTORS TO PRACTICE MEDICINE

Every chiropractor in this State who has not been legally authorized to practice medicine, but who has in any way treated or prescribed for any human disease, pain, injury, deformity or physical condition, or who has held himself out as being able to do so, is a lawbreaker. The penal statute which he has flouted and defied is Section 174 of the Public Health Law, making it a crime punishable by imprisonment or fine, or by both, to practice medicine without a license.

More than eleven years ago the status of the chiropractor in this State was judicially defined. In May, 1914, one Leo E. Ellis, a chiropractor and a graduate of the Davenport University of Chiropractics, was charged with the crime of practicing medicine without a license. Mr. Ellis treated a woman by examining her ankle. He pronounced the arch as having fallen, massaged the foot and advised a different shoe. He manipulated the patient's spine which, speaking as a spinologist, he pronounced out of alignment in several places. He said he could restore it but it would probably not stay the first time. He gave the opinion that the nerves leading to the ankle might be impinged so as to cut off the circulation. He was of course convicted. By the unanimous Appellate Division of the Second Department the decision was thus upheld:

'Appellant's office, sign, his circular and professional card, as well as his own frank admissions as a witness, all shows that he holds himself out as able to diagnose, treat and prescribe for pain, injury and disease. Rubbing and pressure on the human joints are old therapeutic agents. When accompanied by such attempts at diagnosis as the statement that a patient's pains in the ankle were from the spine having come out of alignment through misplaced vertebrae, appellant's acts come within the statutory definition of the practice of medicine.'

Every man in the State of New York who has done what Ellis did has been guilty of the same crime.

In November, 1920, a chiropractor who maintained an office in one of the leading hotels of New York City treated an eight-year-old girl who was suffering from pericarditis and pleuritis for a period of ten days. While under his treatment the child died. In his own handwriting he made out a death certificate and delivered it to the undertaker. The certificate was, of course, refused by the Board of Health and the case turned over to the Medical Examiner's office.

The child had been previously treated in a hospital in this city from which, upon the recommendation of the chiropractor, the parents removed her and undertook his chiropractic treatment. The chiropractor took the child off the careful hospital diet and gave her apples to eat. The child died within ten days after this chiropractor started with his treatment. He was fined upon conviction in the sum of two hundred and fifty dollars or thirty days in prison. He paid the fine.

In May, 1921, a chiropractor having an office in this city, who engaged during the daytime as a clerk in a baggage room of a local railroad depot, was found guilty of practicing medicine without a license and fined fifty dollars. Whether or not he is still engaged in smashing baggage by day and spines by night we have not been informed.

Perhaps one of the most revealing cases was that tried in the Supreme Court of Kings County before Mr. Justice William Hagarty and a jury on April 8, 1924. The culprit chiropractor in this case was Ernest G. Meyer, a Palmer School graduate. Meyer had treated a six-year-old girl suffering with diphtheria, by adjusting the sixth cervical and fourth and eleventh dorsal vertebrae. The child died. A culture of the throat of the deceased showed the presence of Klebs-Löffler bacilli. Investigation by the health authorities disclosed that there were three other small children in the family who had been in contact with the deceased, one of whom had been sleeping with her while Meyer, the chiropractor, was in attendance. Meyer was indicted for the crime of manslaughter and was convicted by a jury of his peers.

One of the witnesses called in Meyer's defense was James G. Greggerson, a national lecturer for the Universal Chiropractic Association. Two of his answers on cross-examination should be enough to explode the chiropractic fallacy and its dangerous charlatanism once and for all time. The most simple credulity should not survive these answers:

"Q Mr. Greggerson, of course, it is not material in your estimation of this situation that Mr. Meyer did not know what the trouble with the child was, is it? A No, sir.

"G And yet in the face of the fact that Mr. Meyer said he didn't know and never knew until after the death of the child that the child had

diphtheria, you still say that your answer does not consider that of any moment? A Yes, sir"

How chiropractors treat diphtheria patients was revealed by the direct examination of Meyer himself

Q What did you observe and what did you do when you were called there? A I observed that the child was in a sick condition and I made a digital examination of the spine

Q What did that examination of the spine disclose to you? A It disclosed that the sixth cervical vertebra, the fourth dorsal vertebra and the eleventh dorsal vertebra were out of alignment causing pressure

Q After you made that examination, what did you do? A I directed the mother to prepare the child for adjustment, put the child on the bench—the chiropractic adjusting bench—and proceeded to adjust the misaligned segments into normal position"

And on cross-examination, this

Q Did you know that the child had diphtheria? A I didn't recognize it as diphtheria

Q And you never knew at any time during your treatment of the child that it had diphtheria? A No

Q And your system didn't indicate to you that it had diphtheria, did it? A I will say no

Q Mr Meyer, do you realize that one of the primary and absolutely necessary essentials to the cure of an ailment is the correct determination of what the ailment is? A No

Q So that you do not need to know what the trouble is in order to cure it? A We have the symptoms to go by

Q Will you answer that question specifically? A No"

If these things do not sufficiently expose the preposterously fraudulent chiropractic claims or reveal how great a menace to life and to limb is the practice of their quackery, turn to the textbook published by the Palmer School of Chiropractic, edited by the son of the founder of that school in 1921. Here is set down the proper and approved chiropractic practice according to the teachings of the founder of the cult. Were not this subject less vital to the public health, were not the lives of men, women and children constantly endangered by the chiropractic impositions, real amusement might be derived from the following directions of the Palmer book as to how the disciples of that school should treat their patients. It is all delightfully simple

"For barber's itch Adjust fifth dorsal

"For cataract of the eye Stand on the right side and adjust the sixth dorsal towards the left shoulder

"For chicken pox Adjust the fifth cervical. I have always been successful in relieving either chicken pox or smallpox by one adjustment.

"Consumption, a wasting disease of the lungs or bowels Adjust accordingly

"Diphtheria Adjust fifth dorsal for any of these throat affections, standing on the right side and throwing the vertebrae in the direction of the left shoulder

"Insanity Adjust atlas or third cervical

"Pneumonia Pneumonia should be relieved by one adjustment in the upper dorsal region

"Typhoid Fever Adjust the sixth dorsal and no other

"Typhus Adjust sixth dorsal"

Now comes Mr Esmond with his Assembly bill introduced January 12, 1926 (No 151, Int 153), sanctioning the practice of chiropractic in this State. After the passage of the bill, all those who would treat insanity by adjusting "the third cervical" or typhus by adjusting "the sixth dorsal" will be required to take certain examinations, but in the meantime all the present practitioners of chiropractic are to receive licenses (at ten dollars per license) provided they fall within one of the three following categories

(a) Graduates after a resident course of three years in a school teaching chiropractic who, during a period of *one year* immediately preceding the passage of the law, have been actually engaged in the practice of chiropractic in this State

(b) Graduates after a resident course of two years in such a school who, during the *last three years* immediately preceding the passage of the law have been actually engaged in the practice of chiropractic in this State

(c) Graduates after a resident course of one year in such a school who, during the last eight years immediately preceding the passage of the law, have been actually so engaged in chiropractic practice

One year in a chiropractic school under this proposed law means a period of "not less than six months"

This bill, if it becomes a law, will represent a new departure in the public policy of this State. For the first time law-breaking is to be rewarded. Not only is it to be rewarded, but the longer it has been engaged in, the greater the reward. The longer one has been concerned in trampling down the public health law, the longer he has pretended to treat and cure disease by spine manipulation the more entitled he be-

comes to the favorable consideration of the licensing authorities. The longer the period of his law-breaking, the less rigid are his educational requirements. Under this bill all those who have been for eight years following in the footsteps of chiropractor Meyer, of Brooklyn, provided they have been more alert than was Meyer in evading jail—all the Meyerites (of eight years' standing) who have kept out of the penitentiary, but who have done six months in a chiropractic school and have been graduated therefrom, are to be rewarded by this State with a license to 'practice chiropractic.' All those who have been smashing trunks by day and spines by night, provided they have done so long enough and have otherwise met the requirements of this bill, will receive a license to use "the degree of D C" or "Doctor of Chiropractic."

How many who have been knowingly and deliberately engaged in violating the Public Health Law of this State the proposed law would license it is impossible to determine. It is, however, certain that these amnesty provisions would license chiropractors of this state now unlawfully practicing their so-called "profession."

But this is not all. A duly licensed practitioner of chiropractic who has complied with the provisions of the bill "shall be subject to all the disabilities, limitations and restrictions and entitled to all the civil rights, privileges and immunities imposed upon and granted to all professional persons by the Civil Practice Act and the Judiciary Law."

Under Section 31 of the Judiciary Law, in criminal actions and in certain special proceedings "in which the soundness of mind of a person is in issue, the court may appoint not more than three disinterested, competent physicians to examine such person as to his soundness of mind at the time of the examination." If the Esmond bill becomes a law, a judge could lawfully appoint from one to three chiropractors to determine the question of a person's sanity. How insanity is treated under the Palmer method we have already seen. It is done in this way "Adjust atlas or third cervical." How the difficult and intricate question of insanity is to be determined is a problem in which the chiropractor is not interested, because it is one of the tenets of his doctrine that diagnosis is of no consequence or importance. The chiropractor scorns diagnosis. In the Meyer case the expert chiropractic witness Greggerson testified that in diphtheria it was not necessary "to know what the trouble with the child was." No doubt this chiropractic

doctrine extends to insanity as well. Thus, if the proposed bill becomes a law three chiropractors might occasion the commitment of a person to an insane asylum without knowing or considering it necessary to know that he was insane.

Nor is this all. Under the proposed bill "within twenty days after the first one hundred licenses have been issued under this act, the regents shall appoint one of such licensees as an additional member of the State Board of Medical Examiners. Such appointee shall not be a medical doctor."

Into the council, therefore, of the Board of Medical Examiners, charged with the onerous and responsible trust of determining the fitness and qualification of those who are to treat the sick and to safeguard the public health, there is to be thrust a chiropractor! Into the counsels of this body there is to be injected the Palmer doctrine and that of his followers, dupes and imitators. In the deliberations of this Board one may sit who believes that typhus is properly treated by adjusting the "sixth dorsal", that for diphtheria "adjust fifth dorsal", and who is ignorant of or scorns the germ theory and all other scientific knowledge.

But what of the public health? What of contagious disease? What of the dangers of a plague? What of smallpox, typhoid fever and diphtheria? What of the safeguards against those things which science has built up, safeguards which have stood the test of the most exacting scientific scrutiny and which have protected and saved the lives of countless thousands? Shall we abandon all these safeguards merely to enable baggage smashers to increase their revenue? Shall we turn loose an ignorant army to prey upon the public health? Shall we permit the State to license those who would treat diphtheria by manipulation of the spine? Shall the people of this State be laid upon the "chiropractic adjusting table" as chiropractor Meyer laid his patient? Meyer was less fortunate than many of his fellow chiropractors, he did not escape the clutches of the law. The vigilant district attorney of Kings County brought him to justice. Because of his criminal ignorance and folly he was convicted for the manslaughter of his patient, but this did not restore the little girl to her weeping parents.

It is time to strike at "Meyerism." The bill should be defeated! It must be defeated. With the aid of an intelligent and an aroused understanding it will be defeated.



State Department of Health



Milk-Borne Poliomyelitis

Dr Edward S Godfrey, Jr, Director of the Division of Communicable Diseases, spent some time recently in a personal investigation of an epidemic of poliomyelitis in the City of Cortland. As a result of his studies Dr Godfrey feels sure that the disease was milk-borne, the first definite outbreak of this character ever described.

On December 7, 1925, a boy sixteen years old, who was working on the dairy farm where the milk concerned was produced, became ill with fever, diarrhea, headache and pain in the back. In spite of his illness he continued at work, milking eight or ten of the twenty cows on the farm. He continued at work for the next three days although he noticed his hands were becoming progressively weaker and he suffered with pain and tenderness in his left arm. On December 11th he was definitely paralyzed in his left upper extremity and his right deltoid muscle but did milk three cows with his right hand before his condition was noticed. From that time he was isolated. A short time previous to the onset of his illness the boy had attended a motion picture theatre. The woman who sold tickets had a child at home suffering with poliomyelitis.

On December 14th, seven days after the onset of the first case, another case developed and others occurred as follows: December 16th, two cases, 18th, two, 19th, one, 25th, three (one of which is a doubtful case). The cases varied in age from 15 months to 22 years, were scattered over the city and investigation did not show contact between them or the original case in any way.

The only point in common was that all but two of the subsequent cases drank milk produced on the farm where the first case was employed. The exceptions were a boy of 19, whose mother worked in a restaurant which purchased daily thirty-five quarts of this milk, and the doubtful case, which did not use the milk.

The dairy from which the milk came sold 215 quarts of milk unpasteurized in the City of Cortland, whose daily supply is about 5,700 quarts.

Diphtheria Toxin-Antitoxin Mixture—Method of Preparation and Testing

The Division of Laboratories and Research, by special request, has prepared the following:

"The following procedures are used in the preparation of diphtheria toxin-antitoxin mixture (O L mixture) at present distributed by the state laboratory in Albany.

The toxin used in the mixture is the phenolized filtrate of a seven-day broth culture of the stan-

dard strain of *B. diphtheria*, which has stood in the cold room for at least one year. This stabilized toxin is restandardized carefully against an antitoxin of known titer to determine its L dose (the least amount of toxin which when combined with one unit of standard antitoxin will cause the death of a guinea pig weighing two hundred and fifty grams within ninety-six hours). The toxin and the antitoxin are then combined with sterile precautions in such proportions as to give a slightly toxic mixture when diluted with physiological salt solution so that 1 cc contains 0.1 of an L dose of the toxin. At present each cc of mixture represents a combination of 0.014 to 0.017 cc of toxin and about 0.00008 cc of antitoxin, diluted with salt solution containing 0.4% of phenol.

The diluted mixture is filtered and careful tests for sterility, toxicity and potency are made. In the final toxicity tests several guinea pigs are injected, some with 5 cc (five times the human dose), others with 1 cc. No mixture is used, 5 cc of which causes the death of a guinea pig in less than ninety-six hours. Guinea pigs receiving this dose should die in from four to six or eight days, although an occasional animal may live longer. The guinea pigs receiving 1 cc develop paralysis in about three weeks, but do not usually die. Intracutaneous tests, similar to the Schick test, are performed on these animals for the purpose of obtaining some indication of the immunizing value of the mixture. Three weeks after injection of the mixture, the guinea pigs receive their first test. If the reaction induced indicates that insufficient antitoxin has developed, the test is repeated a second or, if necessary, even a third time, the tests being made a week apart. The number of tests required, one, two or three, is the so-called "immunity index."

"The finished product is bottled for distribution, special precautions being taken to insure sterility. The material in the final containers is tested for sterility in two kinds of culture medium, and 3 cc are injected into a guinea pig as a final control of the harmlessness of the mixture for human use.

"In the mixture now distributed the toxin and antitoxin are diluted approximately 1:70 with salt solution. One cubic centimeter contains, therefore, an exceedingly small amount of protein. Since the guinea pigs receiving five times the human dose must live more than ninety-six hours, the time of death on which the minimal fatal dose (M F D) is based, one human dose of mixture probably contains somewhat less than one-fifth of an M F D of free toxin."

NEWS NOTES

RESOLUTION ON TOXIN-ANTITOXIN

The following resolution was passed by the Executive Committee of the Council on January 14, 1926

Resolved, That the President shall appoint a committee of ten, which shall include a member from the State Department of Health, and one from the State Charities Aid Association, the Director of the Academy of Medicine, the President of the New York State Homeopathic Society, the Chairman of the Committee on Public Health and Medical Education of the State Society, the Chairman of the Committee on Medical Economics of the State Society the President of the Medical Society of the State of New York, and three other members to be chosen from the Medical Society of the State of New York, for the purpose of formulating a plan of campaign

to make diphtheria toxin-antitoxin available to every child in the state, and of devising a method by which the medical profession may cooperate with the State Department of Health and other agencies in the universal application of the means of immunization against diphtheria and that every practitioner of medicine who wishes may have a part in its administration

The President appointed the following committee Dr Matthias Nicoll, Albany, Mr Homer Folks, New York, Dr Linsly R Williams, New York, Dr George F Raynor, New York, Dr Charles A Gordon, Brooklyn, Dr W Warren Britt, Tonawanda, Dr Frederick E Sondern, New York, Dr Herman G Weiskotten, Syracuse, Dr William H Ross, Brentwood, Dr Nathan B Van Eften, New York

TESTIMONIAL TO ROCHESTER'S HEALTH OFFICER

The program of a dinner of Dr George W Goler, given on December 8, 1925, begins as follows

"This dinner is offered by the Medical Society of the County of Monroe as a testimonial to the good citizenship of George Washington Goler, M D, who has courageously and high-mindedly for twenty-seven years performed the high functions of his office as health officer of the city of Rochester"

Dr Floyd Winslow gave a humorous and witty history of Dr Goler and showed photographic slides from the time he was one year old to the time when he won the war as a Colonel He thought that the whole dinner was a conspiracy against truth He said that Goler nearly arrested him once for failing to register a birth and that he was the only man in the audience who would get up and show the audience what kind of a man Goler was after all

Dr E T Wentworth delivered an address on the chiropractic representing himself as broadcasting from a certain chiropractic school His speech over the radio was very humorous and much appreciated

The program of the after-dinner speaking was as follows

Alvah Strong Miller, President, Medical Society of the County of Monroe,

Dr Rush Rhees, Toastmaster, President of the University of Rochester,

Clarence D Van Zandt, Mayor of the City of Rochester,

George Eastman, Citizen of Rochester,

Augustus Wadsworth, New York State Department of Health,

George Hoyt Whipple, Dean of the University of Rochester Medical School,

William D Johnson, Physician and Surgeon, Batavia,

George Washington Goler, Health Officer of the City of Rochester

Dr Goler is well known to physicians throughout New York State, and especially to its nine hundred health officers Speaking of Dr Goler's work, Dr William D Johnson, of Batavia, drew attention to the fact that partly because of his own lack of interest in public health matters that he knew little about Dr Goler's work He had, however come to know that the country had two outstanding health officers He knew one to be Dr Goler, but had forgotten the name of the other Dr Johnson paid a rich tribute to the spirit of preventive medicine and whole-heartily endorsed the idea of physicians devoting their whole time to community welfare in matters of health

Dr Goler in his response said "I was called with Dr Mott Moore, the man who gave my life its inspiration, to see a family in which there was diphtheria Twelve children were sitting around the table, ten of them had sore throats Dr Moore said in three weeks they will all be dead. Dr Moore was right That was in the days before diphtheria anti-toxin"

LIST OF EDUCATIONAL ARTICLES USED IN THE CAMPAIGN AGAINST THE COMMON COLD CONDUCTED BY THE PUBLIC HEALTH COMMITTEE OF THE ROCHESTER CHAMBER OF COMMERCE

No	Date of Issue	Title	Author
1	Sunday, October 18th & Mon, Oct 19th	"The Common Cold"	Geo W Goler, M D Health Officer
2	Sat P M Oct 24th	"Building Up Resistance to Colds"	Wm Sharp McCanne, M D Prof of Medicine University of Roch Medical College
3	Sun, Nov 1, and Mon P M, Nov 2nd	"The Relation of Fresh Air, Humidity & Heat to Colds"	Wm A Sawyer, M D Med Dir Eastman Kodak Co & Vice Pres of the Pub Health Committee of the Chamber
4	Sat, Nov 7 & Sun, Nov 8	"Colds in Children"	Albert D Kaiser, M D Pres of the T B & Public Health Association
5	Sat, Nov 14 & Sun, Nov 15	Detecting the Oncoming Cold"	John J Lloyd, M D Former Med Director of Mon Co T B San
6	Sun, Nov 22 & Mon, Nov 23	"Colds in the Schools"	Herman J Norton, Dir of Health Educ Roch Dept of Public Instruction
7	Sun, Nov 29 & Mon, Nov 30	"Catching a Cold"	Stanhope Bayne-Jones, M D Prof of Bacteriology, U of Roch Medical School
8	Sat, Dec 5 & Sun, Dec 6	"The Relation of Clothes to Colds"	Marion Craig Potter, M D
9	Sun, Dec 13 & Mon, Dec 14	The Physiology of Colds"	Wallace Osgood Fenn, M D Prof of Physiology, Univ of Roch Medical School
10	Sat, Dec 19 & Sun, Dec 20	The Relation of Foods to Colds	John R Murlin, Ph D Dir Dept of Vital Economics, Univ of Roch chrman Public Health Com
11	Sun Jan 3 & Mon, Jan 4	"Every Cold a Possible Beginning of an Epidemic"	Haven B Emerson M D Prof of Public Health Admin of Col Univ
12	Sat, Jan 9 & Sun Jan 10	Conquering the Cold"	C E A Winslow M D Prof of Public Health at Yale Univ Medical School

BRONX COUNTY MEDICAL SOCIETY

The Annual Meeting of the Bronx County Medical Society, held at Concourse Plaza, on December 16, 1925, was called to order at 9 P M, the President, Dr Jacobs, in the Chair

The following Officers, Censors and Delegates were elected for the year 1926

President, Edward R Cuniffe, 1st vice-president, Louis A Friedman, 2nd vice-president, Samuel Gitlow, secretary, I J Landsman, corresponding secretary, Samuel F Weitzner, treasurer J Adlai Keller, Censors William Klein, Louis Sheinman, Delegates to State Society Harry Aranow, Edward R Cuniffe, Edward C Podvin, Norman Roth, Alternates Moses H Krakow, Louis Nagorsky, Samuel Roscnweig Benjamin Sherwin

The Secretary read a letter from Dr Kopetzky, President of The Medical Society of the County of New York, enclosing minutes of the Con-

ference on the Nursing Situation by Committees Representing the Medical Societies of the Greater City of New York, held on December 9th, and also a copy of the Resolutions passed by the New York County Society It was moved and carried that the Bronx County Medical Society adopt similar Resolutions

The rest of the evening was devoted to the question of erecting a building suitable for the needs of the Bronx County Medical Society After Dr Cuniffe, Chairman of the Building Committee, submitted the Report of the Committee, and the members of the Society pledged between forty and fifty thousand dollars toward this Fund The ambition of the Society is to erect an Academy of Medicine in the northern part of the Bronx, which shall be a centre to the adjacent counties and cities north of the Bronx

MEDICAL SOCIETY OF THE COUNTY OF MONTGOMERY

The annual meeting of the Medical Society of the County of Montgomery was held in Amsterdam, Thursday, December 10, 1925, at the Y M C A building. The meeting was called to order at three o'clock by the President, Dr James S Walton.

The afternoon session was taken up by Dr Samuel Tirman, of Brooklyn, with a clinic on "Methods of Physical Diagnosis." Forty cases of heart disease were presented by various physicians coming from different sections of the county. The physicians present were able to listen to the heart sounds by using the multiple stethoscope.

The evening session was called to order at 8:15 and the following officers were elected for the ensuing year:

President, E Harrison Ormsby, Vice President, Clayton Fox, Secretary, William R Pierce, Treasurer, Seymour Homrighouse, Censors, Dr William H Bing, Dr E C LaPorte, Dr Charles Stover, Delegate, House of Delegates, Dr Horace M Hicks.

A resolution was adopted endorsing the movement for the national endowment fund for a physicians' home, and another approving the State Department of Health's plan to have all children protected against diphtheria by toxin-anti-toxin.

Following the business meeting, Dr Richard Morgan, associate physician at Mount McGregor, read a paper on "The Care of Tuberculosis by the General Practitioner." Dr Samuel Tirman gave a paper with blackboard demonstrations on the new conceptions of cardiology. There being no further business, the meeting adjourned.

THE DUTCHESS-PUTNAM MEDICAL SOCIETY

The annual meeting of the Dutchess-Putnam Medical Society was held at the Hudson River State Hospital, Poughkeepsie, on January 13, 1926. The following officers were elected for the ensuing year:

President, F B Weaver, Hyde Park, Vice-President, J N Boyce, Poughkeepsie, Secretary-Treasurer, H P Carpenter, Poughkeepsie, Associate Secretary, Aaron Sobel, Poughkeepsie, Delegate for Three Years, W A Krieger, Poughkeepsie, Alternate for Three Years, R H Breed, Wappingers Falls, Censors, A L Peckham, J W Poucher, J Coborn.

Dr W G Thorne of Poughkeepsie was

elected to membership. Dr C J Patterson of Poughkeepsie was received on transfer from Rensselaer County.

SCIENTIFIC SESSION

"Recent Progress in the Treatment of Cataract of Interest to the General Practitioner," illustrated with lantern slides, Isaac Hartshorne, M D, New York City.

"Birth Control" by James F Cooper, M D, New York City.

A dinner was served at the Hudson River State Hospital at 6 P M. About fifty were in attendance.

MEDICAL SOCIETY OF THE COUNTY OF JEFFERSON

The regular meeting of the Medical Society of the County of Jefferson was held on January 14, 1926, Dr P E Thornhill as Secretary. He acted in the absence of Dr W Atkinson who was abroad visiting clinics in Europe.

Dr M Lee Smith and Dr George F Bock were unanimously elected to membership.

The amalgamation of the Medical Society of the City of Watertown and the Medical Society of the County of Jefferson was completed. This amalgamation was considered advisable owing to the fact that the County Society only met twice a year and the interest in it was on the wane, whereas the City Society, though small, held monthly meetings and was active. The consolidation of these societies would make it possible to have a much more active County So-

cietly and meetings every month with the exception of July and August.

The program committee reported that they had secured an out-of-town speaker for every second meeting this year, the alternate meetings to be addressed by members of the Society. The address at the December meeting was by Dr Russel L Cecil, New York, on "Pneumonia."

Arrangements have been made for a course of six lectures on pediatrics to take place this coming spring. Jefferson and St. Lawrence Counties are also arranging a joint program similar to the joint program of Obstetrics last spring. These lectures are of great benefit to the membership and activity of the Society. The attendance at meetings has been greatly increased by them.



THE DAILY PRESS



Lay Health Organizations

Who is responsible for the health conditions of a community? The Department of Health is a correct answer for those who believe in paternalism in government. The family doctor is the answer of those who believe in individualism and American independence of action.

Both answers are correct. The principles of both paternalism and independence of action must be applied to every public health problem.

The principle of paternalism is not opposed to that of individualism to the extent that might at first appear. Paternalism is the exercise of external authority or force which is none the less real because it is benevolent. The influence of style, custom, and habit on individuals is as compelling as that of the police, and the restraints of polite society are more effectual than statute laws. The American people will act in accordance with the prevailing custom or what they think the other fellow is doing, and that is often directed by the funny pages of the daily press.

The question arises: Who are the leaders in establishing health customs? Departments of health set the official standards, lay organizations advertise them and "sell" them to the public, and family doctors carry out the details of their application to individuals. This is the ideal scheme of action in public health activities.

The three-fold division of labor is still somewhat idealistic and visionary. The standards set by Departments of health are probably permanent, although they are subject to minor changes wherever new hygienic discoveries are made.

The advertising and selling plans of the lay organizations are still incomplete in so far as the organizations fail to cooperate with the family doctors or to secure their support. The direct activities of lay health organizations—lectures, exhibits, printed matter, and nursing—reach only a small proportion of people, while doctors reach practically all the people. A movement by lay organizations to secure the cooperation of family doctors would be a great item of advance in public health work.

These reflections are inspired by an address by Dr. Louis I. Harris, Commissioner of Health of New York City, reported in the *New York Herald-Tribune* of January 17. Speaking before the American Social Hygiene Association, the Commissioner said that public officials are looking more and more to private welfare

and health organizations to work for better health and social conditions in the city.

The concrete application of the principle expressed by the Commissioner would seem to be that the standards set by the Department of Health should be advertised and sold to the public by lay organizations, and that family doctors, or their official organizations, should also be enlisted in the sale of good health.

Beauty Doctoring

Beauty doctoring is seemingly as popular as ever, although the methods as well as the results have been vastly improved in recent years. It is not easy to find a really homely looking girl now-a-days, as the members of the Beauty Shop Owners Convention found, according to the *New York Herald-Tribune* of January sixth. The girl chosen for her lack of beauty was subjected to a half day's manipulations of the beauty specialists, who subjected her to "brilliantine, muscle oil, tar tonic, astringent lotion, erasator, scalp tone, calmine lotion, tissue cream, whiting cream, astringent cream, lemon cream, lettuce cream, cucumber cream, spinach cream, jassmin cream, nail bleach, cuticle remover, face powder, rouge naturelle, almond cream, skin food, almond meal, a clay pack, wrinkle cream, icitone lotion, tincture of jaborandi, tincture of mullein, tincture of capsicum, bluing, skin tightener, mani rosa oil, and pluck her eyebrows."

The director of the transformation is reported to have said: "It is wonderful. Now you can get a beau and maybe a husband." "Beau, nothing!" replied the glorified girl, "come around to the church a week from today and see me married to my fellow. We became engaged long before I became beautiful."

After reading this account we had visions of writing an easy column on the methods and costs of beauty made to order as revealed in the pseudo-scientific advertisements in the women's magazines, but we were disillusioned. The garish advertisements of a dozen years ago have almost completely disappeared from the better class of monthly magazines, and we had difficulty in finding a sufficient number of the old-time beauty advertisements to serve as illustrations. One of the most prominent magazines had only two bizarre advertisements. A hair dye was advertised with a picture of a beautiful white-haired woman looking daggers at a black-haired matron to whom her young husband was attracted—presumably by the glossy locks. The other was a half column

advertisement of "kissproof lip sticks" (This brand should be recommended to a prominent dentist whom we heard complaining about the annoyance of getting his lady patients' red dye sneared over his hands and white coat)

What kind of advertisements are taking the place of the beauty appeals of a decade ago? The appeal is still very properly there, but it is on a more rational basis. The prominent journal to which we have referred carried major advertisements which had health or beauty appeals on the following subjects

Soap	5 advertisements
Foods	11 advertisements
Cold Cream	7 advertisements
Tooth Paste	3 advertisements
Hair Restorers	2 advertisements
Toilet Articles	5 advertisements

The highest class magazines still carry a very few of the old time crude beauty advertisements in abbreviated form in inconspicuous positions. But the beauty advertisements appear in greater number and size in the monthlies devoted to fashions and gushy novels. There the ladies are urged to buy their hair tonics and destroyers, luster preservers and restorers, skin foods and cleansers, fat producers and reducers, sleep inducers and vigor producers—in fact anything you want.

But the biggest offenders are found among a class of magazines whose specialty is to abuse the medical profession, and whose greatest assets are false names implying the promotion of health and vigor. In these periodicals the old time lurid promises are blazoned forth, and are presumably financially successful. Still, physicians need not be pessimistic. These journals flourish if an exceedingly small proportion of the people patronize them and their advertisers. The optimistic fact remains that the periodicals which have the big circulations and reach the majority of the homes of the nation now seldom print the misleading advertisements to which doctors object.

Air-Borne Pneumonia

The New York Sun, January 14th, contains an article on the analyses of samples of air taken from the capitol in Washington. The article says:

'An epidemic of pneumonia in Washington, marked by a sharply rising death rate, has caused officials of the Federal and city governments to order inspection of ventilation systems in all public places. In addition, government scientists are making laboratory tests of

air in the Capitol and other government buildings. Work of this kind was first undertaken two years ago when there were a number of deaths among senators. As a result the ventilating system of the Capitol was enlarged and improved, and the new tests and germ count will show the result."

"A special inspection of the ventilating systems in all theaters, halls, and department stores has been ordered by the local health authorities. Air samples are not being taken in the theaters and other places which have already approved ventilating systems. It is the opinion of city officers that the systems are ample, if they are working properly."

This is excellent propaganda so far as it goes. It is efficient in calling attention to ventilation, and the scientific methods of measuring the constituents of air and of providing air that conforms to a high standard of comfort and decency. But the relation of ventilation to pneumonia and other air-borne diseases is not explained in the articles.

The importance of "fresh" air is stressed in popular writings, the greater importance of disease germs in foul air is less emphasized, while the danger created by the presence of a person spreading pneumonia germs is scarcely mentioned at all. It is true that the danger from coughs and sneezes is mentioned in schools and health lectures, but the people generally are still in ignorance of the ordinary chain of events that happen when air borne infections occurs.

The impression given by articles on ventilation is that fresh air is a panacea and a universal prevention for all kinds of respiratory diseases. But fresh air is only one element in their prevention, and not the greatest. The people need to be taught that respiratory diseases are contagious and are spread by persons who are affected with the diseases. The three points to be emphasized are the presence of disease germs in the nose and throat, their expulsion in coughs, sneezes, and talking, and their carriage to others by "droplet infections." The weakness of this line of instruction is the inability of bacteriologists to detect or identify many of the common germs that produce respiratory diseases. But there is overwhelming evidence that acute respiratory disease are contagious, and that the sick have caught their diseases from previous patients.

Let us have propaganda for ventilation and fresh air. Let us also have popular instruction regarding the most common mode of transmission of acute respiratory diseases.



DEATHS



- BROMLEY, LOVINE A, Granville, University of Vermont, 1882, Member State Society Died December 2, 1925
- BRONSON, EDWARD BENNET, New York City, College of Physicians and Surgeons of New York, 1869, Member State Society, New York Academy of Medicine, Alumni Bellevue Hospital, Consulting Physician City and Babies' Hospitals Died November 18, 1925
- CARSON, JAMES CARLTON, Syracuse, Bellevue Medical College, 1870, American Association for Study of Feeble Minded, Syracuse Academy of Medicine, Member State Society Died January 1, 1926
- DRAPER, WILLIAM KINNICUTT, New York City, College of Physicians and Surgeons of New York, 1888, Fellow American Medical Association, National Tuberculosis Association, New York Academy of Medicine, Member State Society, Visiting Physician Bellevue Hospital, Consulting Physician New York Orthopedic Hospital Died January 5, 1926
- EBERLE, EDWARD, Brooklyn, Kentucky School of Medicine, 1898, Member State Society, Assistant Surgeon Brooklyn Eye & Ear Hospital Died December 18, 1925
- ELLIOTT, EDWARD ROSS, Montgomery, New York University, 1874, Member State Society Died January 7, 1926
- LAW, JAMES, New York City, New York University, 1891, Fellow American Medical Association, New York Academy of Medicine, Member State Society, Physician Harlem Dispensary Died December 26, 1925
- LEE, JOHN MALLORY, Rochester, University of Michigan, 1878, Fellow American Medical Association, American Radium Society, Member State Society, Consulting Surgeon Gowanda State Hospital Died January 11 1926
- MANDL, NICOL MARTIN, New York City, Vienna, 1891, Fellow American Medical Association, Member State Society, Attending Pediatrician Hospital Joint Diseases Died January 2, 1926
- MECCHELLA, GIOVANNI, Brooklyn, University of Naples, 1898, Member State Society Died November, 1925
- MYERS, THADDEUS HALSTED, New York City, College of Physicians and Surgeons of New York, 1885, Fellow American Medical Association, American Orthopedic Association, New York Academy of Medicine, Member State Society, Alumni Association St Luke's Hospital, Orthopedic Surgeon St Luke's, St John's, State Crippled & Deformed Children and New York Nursery and Childs Hospitals Died December 24, 1925
- PURDY, WILLIAM H, Mt Vernon, Bellevue Medical College, 1898, Fellow American Medical Association, Member and former Vice-President State Society, Chief Medical Staff Mt Vernon Hospital Died December 16, 1925
- RENN, PIUS, New York City, New York University, 1896, Fellow American Medical Association, Member State Society, Alumni Association Lenox Hill Hospital Died December 31, 1925
- SWIFT, GEORGE MONTAGUE, New York City, College of Physicians and Surgeons of New York, 1879, Fellow American Medical Association, New York Academy of Medicine, Member State Society, Alumni Associations Bellevue and Foundling Hospitals Died December 26, 1925
- THATCHER, HAINES C, West Danby, Hahnemann, Chicago, 1889, Member State Society Died January 18, 1926

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

THE ART AND PRACTICE OF MEDICAL WRITING By GEORGE H. SIMMONS, M.D., Editor and General Manager Emeritus, American Medical Association, and MORRIS FISHBEIN, M.D., Editor, *The Journal of the American Medical Association*, Chicago American Medical Association Press, 1925

THE OLD TIME COUNTRY DOCTOR. A special article published in *The Journal of the American Medical Association* By WILLIAM ALLEN PUSEY American Medical Association Press, 1925

SCOLIOSIS-ROTARY LATERAL CURVATURE OF THE SPINE. By SAMUEL KLEINBERG, M.D., F.A.C.S., Assistant Surgeon, New York Hospital for Ruptured and Crippled, Chief of Orthopedic Service, Israel Zion Hospital of Brooklyn Paul B Hoeber, Inc., New York Price, \$6.00

IMMUNOCHEMICAL STUDIES Edited by CARL H. BROWNING Gardner Professor of Bacteriology in the University, and Director of the Laboratory of Clinical Pathology, Western Infirmary, Glasgow Contributors C H BROWNING, Glasgow, M KOSIKAI, Japan, T J MACKIE, Edinburgh, T TANIGUCHI, Japan, G H WILSON Birmingham, and N YOSHINARE, Japan. William Wood & Company, New York Price, \$4.50

THE STOMACH AND UPPER ALIMENTARY CANAL IN HEALTH AND DISEASE. By T IZOD BENNETT, M.D. (London), M.R.C.P., Assistant Physician to the Middlesex Hospital, Physician to the Royal National Orthopaedic Hospital, etc. William Wood & Company, New York. Price, \$6.00

SCHISTOSOMIASIS VEL BILHARZIASIS By C G KAY SHARP M.D., Fellow Royal Institute of Public Health, Chief Medical Officer, Education Department Province of Natal, with a foreword by J B CHRISTOPHERSON, C.M.G., M.D., F.R.C.P., F.R.C.S. William Wood & Company, New York Price, \$2.75

THE BOOK OF PRESCRIPTIONS WITH NOTES ON THE PHARMACOLOGY AND THERAPEUTICS OF THE MORE IMPORTANT DRUGS AND AN INDEX OF DISEASE AND REMEDIES By E W LUCAS, C.B.E., Fellow of the Institute of Chemistry, Fellow of the Chemical Society, and H B STEVENS, O.E.B., Fellow of the Institute of Chemistry, Eleventh edition P Blakiston's Son & Company, Philadelphia

MEMORANDA OF TOXICOLOGY PARTLY BASED ON TANNER'S MEMORANDA OF POISONS By MAN TRIMPER B.S., A.M., Formerly Lecturer on Toxicology Jefferson Medical College, Philadelphia with introduction and addenda by HENRY LEFFMANN A.M. M.D., Emeritus Pathologic Chemist, Jefferson Hospital Philadelphia P Blakiston's Son & Company, Philadelphia

RADIOGRAPHY A Manual of X-ray Technique, Interpretation and Therapy By CHARLES D ENFIELD, M.D. F.A.C.P. Roentgenologist St Anthony's Hospital Louisville Ky 194 Illustrations P Blakiston's Son & Co., Philadelphia

A SYNOPSIS OF MEDICINE. By HENRY LETHEBY TIDY, M.A., M.D., B.Ch. (Oxon) F.R.C.P. (Lond.), Assistant Physician to St. Thomas's Hospital, Physician to the Royal Northern Hospital, Fourth Edition, Revised and Enlarged. William Wood and Company, New York. Price, \$6.00

A SYSTEM OF CLINICAL MEDICINE. Dealing with Diagnosis, Prognosis, and Treatment of Disease for Students and Practitioners By THOMAS DIXON SAVILL, M.D., Lond. Seventh Edition. William Wood & Company, New York Price, \$9.00

HEALTH THROUGH PREVENTION AND CONTROL OF DISEASES By THOMAS D WOOD, M.D., College Physician and Adviser in Health Education, Teachers College, Columbia University and HUGH GRANT ROWELL, M.D., Physician, Horace Mann Schools, Teachers College, Columbia University World Book Company, Chicago, Ill

ULTRA-VIOLET RAYS IN THE TREATMENT AND CURE OF DISEASE. By PERCY HALL, M.R.C.S. (Eng), L.R.C.P. (Lond) with introductions by SIR HENRY GAUVAIN, M.A., M.D., M.C. (Camb) Medical Superintendent, Lord Mayor Treloar Cripples' Hospitals and LEONARD E. HILL, M.B. (Lond), F.R.S., Director, Department of Applied Physiology and Hygiene. C. V Mosby Company, St. Louis, Mo, 1924 Price, \$3.75

PLASTIC SURGERY OF THE NOSE. By J EASTMAN SHEEHAN, M.D., F.A.C.S., Associate Surgeon and Lecturer International Clinic of Otorhinolaryngology and Facio-Maxillary Surgery, Paris, Plastic Surgeon and Chief of Nose and Throat Clinic, New York Post-Graduate Medical School and Hospital, foreword by JOHN F ERDMANN, M.D., F.A.C.S., Professor of Surgery, New York Post-Graduate Medical School and Hospital Paul B Hoeber, Inc., New York Price, \$10.00

HEADACHE, ITS CAUSES AND TREATMENT By Dr THOMAS F REILLY, Attending Physician Bellevue and Allied Hospitals, Fordham Division, and at St Vincent's Hospital P Blakiston's Son & Company, Philadelphia Price, \$3.00

PHYSICAL CHEMISTRY IN BIOLOGY AND MEDICINE. By J F MCCLENDON, Ph.D., and GRACE MEDES, Ph.D. Octavo of 425 pages, illustrated. Philadelphia and London, W R Saunders Company, 1925 Cloth, \$4.50

PREVENTIVE MEDICINE. By MARK F BOYD, M.D. M.S., C.P.H. Second edition, revised Octavo of 429 pages with 135 illustrations Philadelphia and London, W B Saunders Company, 1925 Cloth, \$4.00

A TEXT-BOOK OF GENERAL BACTERIOLOGY By EDWIN O JORDAN Ph.D. Eighth edition, thoroughly revised Octavo of 752 pages fully illustrated. Philadelphia and London, W B Saunders Company 1924 Cloth \$5.00

A MANUAL OF GYNECOLOGY By JOHN COOKE HIRST M.D. F.A.C.S. Second edition, revised 12mo of 508 pages with 195 illustrations Philadelphia and London, W B Saunders Company, 1925 Cloth, \$3.50,



BOOK REVIEWS



MEDICAL CLINICS OF NORTH AMERICA Published every other month by the W. B. Saunders Co., Phila and London Per Clinic Year (6 issues) Cloth, \$16.00 net, paper, \$12.00 net

Volume 8, Number 5, March 1925 (Boston Number) The Boston number of the Medical Clinics of North America maintains the high standard of this publication. This issue is written by many of the eminent men of Boston well qualified by experience and training in special lines relating their experience and deductions drawn from their work in the various hospital clinics of that city.

The articles are written in a clear readable style and contain many points of value to medical men.

The articles on problems of diabetes, splenomegaly in children, and generalized enlargement of lymph nodes and spleen with chronic focal infection are particularly interesting. C. E. HAMILTON

Volume 8, Number 6, May, 1925 (Boston Number) The Medical Clinics of North America are always interesting as to a certain extent, and perhaps to a considerable extent, they represent the prevailing fashions in the region from which each number appears. At the same time they represent the prevailing interest of a portion of the country in a particular part of the human economy. As this particular number hails from Boston it is to be expected that a considerable part of the issue would be taken up with articles on the heart. Such is the case. All of the articles on heart problems contain information of value to all physicians dealing with the sick.

The number contains a very interesting article on urinalysis, which would make good reading for anyone, as it is pregnant with salient truths. Equally as interesting is the article on gout, as that disease is not commonly seen, and unless one is reminded of it occasionally, it is overlooked.

Gall bladder, peptic ulcer, arthritis, and endocrines, of course, come in for some review, and to end the issue Joslin outlines his method for the treatment of diabetic coma. All of these subjects are treated so as to bring out worthwhile problems of clinical medicine.

J. ARTHUR BUCHANAN

ORGANIC MEDICAMENTS AND THEIR PREPARATION By ERNEST FOURNEAU. Authorized translation by W. A. Silvester, M.Sc. Octavo of 262 pages, with 22 illustrations. Phila, P. Blakiston's Son & Co., 1925. Cloth, \$4.25.

This is a unique, interesting and valuable book to those interested in pharmacology and bed-rock details of therapy.

Dr. Fournneau is a master chemist and has condensed into two hundred and fifty pages the technical methods of producing most of the common synthetic drugs in use today. It is a most readable presentation of an ordinarily technical subject.

The author's familiarity with physiology and pharmacology has permitted many deductive applications of organic medicaments that should prove helpful.

M. F. DeL.

AIDS TO OBSTETRICS By SAMUEL NALL, B.A., M.B., Cantab. M.R.C.P., Lond. Revised by C. J. NEPEAN LOVGRIDGE, M.D., Vict., F.R.C.S., Eng., M.R.C.P., London. Ninth Edition. William Wood and Co., New York, 1925. Price, \$1.25.

This ninth edition of a popular little book is a remarkably well condensed, yet fairly complete "skeleton of essential facts." Though not arranged in the familiar question and answer form of the compend, it answers the same purpose. C. A. G.

A PRACTICE OF GYNÆCOLOGY By HENRY JELLET, M.D., F.R.C.P.I. Fifth Edition. Octavo of 744 pages with 417 illustrations and 15 colored plates. Philadelphia, Lea and Febiger, 1925. Cloth, \$8.50.

This splendid textbook is a credit to the author and the publisher. This edition has been very carefully revised, and contains the latest work of Novak on menstruation, and the transuterine pneumoperitoneum studies of Rubin and Peterson, although Jellett is skeptical as to the practical value of X-ray examination after inflation of the abdominal cavity. Sampson's recent epoch making work on implantation adenomata is included, and one of Sampson's beautiful color plates adorns the volume. Vaccine therapy and the story of uterine displacements is thoroughly covered. The book is distinctly up to the minute. C. A. G.

A MANUAL OF PHYSICAL DIAGNOSIS By AUSTIN FLINT, M.D., LL.D. Ninth Edition, revised by HENRY C. THACHER, M.S., M.D. 12mo of 320 pages, illustrated. Philadelphia, Lea and Febiger, 1925. Cloth, \$3.00.

In the preface, the author states that the manual is to fill "the demand of the student and of many graduates in medicine for simplicity, directness, exactness, and skill in dealing with the physical signs in health and disease." The book in a very meager way fills this demand.

Many important physical findings are omitted. Gower is not even mentioned, and the same applies to the abnormal physical findings in the eyes. A common physical finding in many lung and cardiac conditions, namely, clubbed fingers, is omitted. The nerve reflexes are not even mentioned. A method for taking blood pressure is not given. Such a subject is not considered.

The cardiac arrhythmias receive scant consideration. In fact, the two commonest receive a little over a page for their discussion. Under auricular fibrillation, it is stated that with exercise the mild cases may be detected as the irregularity is increased with the frequency. If a pulse in the beginning is completely irregular, it can not be made more than complete. If one did not know in advance how to recognize the arrhythmias clinically, little help would be derived from reading this section of the book.

The book is of value in its historic sense but should be more inclusive of such omissions as we have mentioned in order to fulfill its purpose of an up to date manual. J. ARTHUR BUCHANAN

DISEASES OF THE BRONCHI, LUNGS AND PLEURA By FREDERICK T. LORD, M.D. Second Edition, thoroughly revised, chapter on pulmonary tuberculosis. Octavo of 776 pages with 107 illustrations and 3 color plates. Lea and Febiger, Phila., 1925. Cloth, \$8.00.

The author considers all diseases of the bronchi, lungs, and pleura, whether the disease happens to be a common or a rare one. He possesses the happy faculty of considering important diseases in a complete way, while the unimportant ones receive but limited consideration. There is also an extensive bibliography throughout the book.

The therapeutic measures are very simple in most instances, and the many drugs for lung therapy that are so widely advertised today are not mentioned.

The most unusual statement in the book is that the use of all remedies for the desensitization of persons with asthma have no real value, and are of little use. This is a wide departure from current practice in many quarters where patients are being desensitized against all sorts of agents.

The author presents a book for value as a reference book and a therapeutic guide for diseases of the chest, excluding the heart. J. ARTHUR BUCHANAN

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OBSERVATIONS ON RENAL AND URETERAL CALCULI

By EDWARD F KILBANE, M D

NEW YORK CITY

It is the purpose of this paper to consider only those cases where the presence of a stone either in the ureter or in the kidney pelvis is the predominating lesion. The symptomatology is practically the same in either case, and the treatment will differ in detail only.

Some degree of infection is present with every calculus, and if the calculus remains for some time, this varying with different individuals, the infection may progress to the point where it is the predominating lesion, even to the point of complete destruction of a kidney or the presence of a generalized sepsis. That type of case constitutes a distinct clinical entity quite without the scope of the present paper. Fig 1, II, and III.

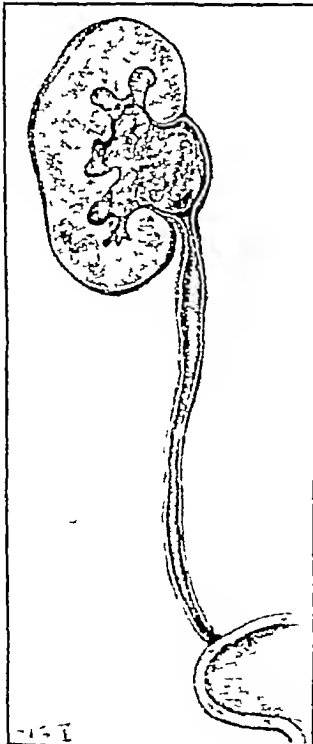


Fig 1



Fig 2—Roentgenogram of type of stone illustrated in Fig 1

One of the most frequent questions asked by patients who have calculi, refers to the cause of stone formation, and it is one of the most natural, for knowing the cause, one is in a position to so shape his mode of living that the chance of recurrence is removed or reduced to a minimum.

Unfortunately, however, of the etiology of stone formation we know but little. There are indeed but few subjects on which we have so little accurate knowledge, and probably on none is there more misinformation.

We know that under normal circumstances the urine maintains in solution in crystal form, urates, phosphates, oxalates and other similar substances. Further we know that under some circumstances, which we must consider abnormal circumstances, these crystals cease to maintain their individual isolation in passing through the urinary tract—some mechanism causing them to



Fig 3—Pyelogram of same kidney as Fig 2 showing extent to which the destruction of the kidney parenchyma has progressed

be precipitated in a manner to form hard fused concretions, or in other words stones

In the excretion of many substances by the kidney, urea, uric acid, creatinin, sugar and chlorides, the concentration of these substances in the blood seems to be the stimulus and controlling factor to the kidney for their excretion

It might seem, and it has been quite generally assumed, that there is a high incidence of lithiasis in such diseases as are characterized by increased blood concentration of some of these salts or in those conditions characterized by a visible increase in the crystalline content of the urine, but little statistical evidence is offered to support these contentions. The three commonest conditions associated with an excessive crystalline content in the urine, oxaluria, phosphaturia and gout are found far more frequently without calculous formations than with it, which would tend to prove that increased crystalline content is not in itself the important factor. Also it is conceivable that normally there is a protective mechanism at work to maintain crystals in solution, that this mechanism may be quantitative as well as qualitative and that at times excessive secretion of crystalloid materials may reach such proportions that the normal mechanism is lost through the exhaustion of its protective colloids to the end that the excess of crystalloid material precipitates into formed concretions

Geographic distribution, race, heredity, age, sex, diet (including water), and trauma seem to offer but little constructive suggestions relating to the formation of concretions. If factors at all they are probably of secondary importance, contribu-

tatory possibly only in the presence of more definitely causative factors. Further there is little conclusive evidence that anatomical factors or urinary stasis can imitate the stone forming process, but their frequent association with calculus makes it seem likely that the stone forming mechanism may work to better advantage when such conditions exist. The problem of urinary calculus formation is apparently one of chemical precipitation. Differences of reaction as determined by the hydrogen ion concentration and quantitative and qualitative changes in the colloidal materials, mucin, pigments, albumen and nuclealbumen in the urine influence the nature of urinary sediments both chemically and physically, and the microscopic and gross features of calculi seem to show that an abnormal variation of these factors is at work in the formation of calculi. The chemical evidence seems to point to a local mechanism at work in the kidney or bladder. The frequent occurrence of foci of infection in patients with calculi would seem to point to more than a casual relationship. Also there is almost constantly found infection of the kidney or bladder in association with stone. But it is not possible at the present time to accept in its entirety the idea of a specific stone forming infection, despite the definite views to that end that have been expressed. However, it is probable that infection comes nearer to explaining the secret of stone formation than any of the various other theories.

Symptoms Pain, haematuria, nausea and vomiting, urinary frequency and urgency are the predominating symptoms in the order of their frequency. There is no definite order as to the sequence of their appearance, usually either pain or haematuria appears as the primary subjective symptom, Fig 4 followed by the gastrointestinal and the urinary symptoms in the order named. It is always well to remember however, that any variation in the type or sequence of symptoms may occur.

Pain is a very striking and usually the most prominent symptom. The onset may be very sudden or it may be more gradual, beginning as a sense of uneasiness, followed by a dull ache of increasing intensity, and this latter type is more likely to be the case when the patient has repeated attacks. Fig 5. There may be remissions of severity with a very severe attack, or a constant dull ache with periods of very sharp accentuation. Fig 6. About the severity of the pain there is seldom any question either in the mind of the patient or of the onlooker. The sufferer moans or cries and rolls or crawls about the bed or on the floor constantly seeking relief in change of posture and position or by making pressure in the flank. Women who have had children say that the pain with stone is worse than that of childbirth, and even if this is an exaggeration the mere expression of such a comparison serves to fix in

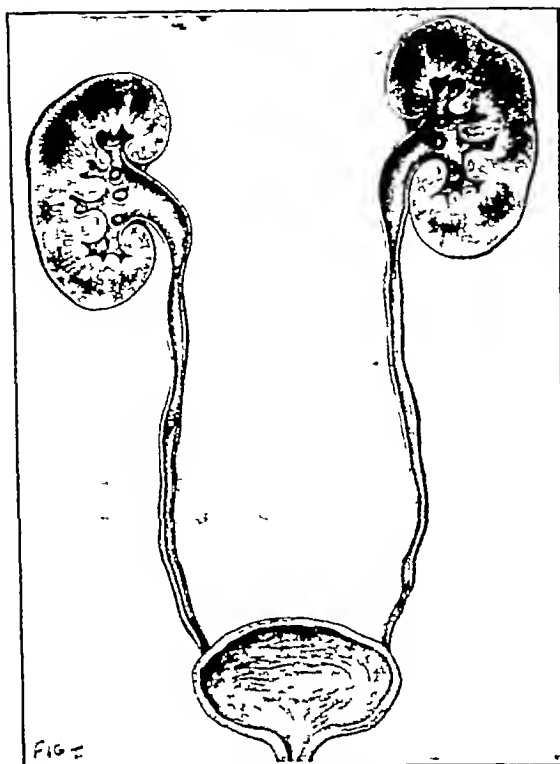


Fig 4—Right ureter contains a stone which has not blocked the flow of urine. Haematuria might be profuse but no pain would be noted until obstruction to the flow of urine occurred as illustrated in the left ureter where a spasm of the lower end of the ureter has firmly grasped the calculus

one's mind the character of the suffering. The writer is firmly of the opinion that the pain is due to distention of the pelvis and ureter with urine, the kidney continuing to secrete even when the escape of urine downward is prevented by a stone or other lesion causing a complete obstruction, in these cases by a stone completely filling the lumen of the ureter, either by its size and shape or because it is firmly grasped in a spasm of the ureteral muscles and it is quite probable that spasm is always a factor. Fig 7. It is highly improbable that trauma of the ureteral mucosa incident to movement of a stone is an important factor in causing pain. Trauma incident to instrumentation is seldom complained of, but distention of either the ureter or pelvis with injected fluid will instantly cause pain exactly simulating that of calculus colic. The duration of the pain varies from minutes to hours or even longer. As we usually see cases the pain persists until influenced by medication, but occasionally persistent retching seemed to be followed by relief from pain and again it ceases spontaneously.

The onset of the pain is usually without demonstrable cause, and although exertion, rapid movements, etc., may seem to influence the onset, as often as not the attack will begin during the night

while the patient is asleep in bed. One factor that would seem to have more than a casual relationship from the frequency of association is the onset of pain after a ride in a railroad coach or an automobile.

The location of the pain also varies somewhat but when severe the maximum intensity is always in the costovetebral angle. Radiation of pain is common, most frequently downward and forward to the testicle or labia, less frequently to the groin, penis, labia, thigh or knee, or anteriorly to the upper abdomen or even to the shoulder. Occasionally a calculus in the kidney pelvis before it causes complete blocking to urinary outflow, may be associated with a dull ache in the groin of the same side as its only subjective symptom.

Despite exceptions to this rule it is not possible to accurately locate the position of a calculus from the type or location of the pain or the direction in which it radiates.

Gastro-intestinal symptoms. Symptoms of gas-

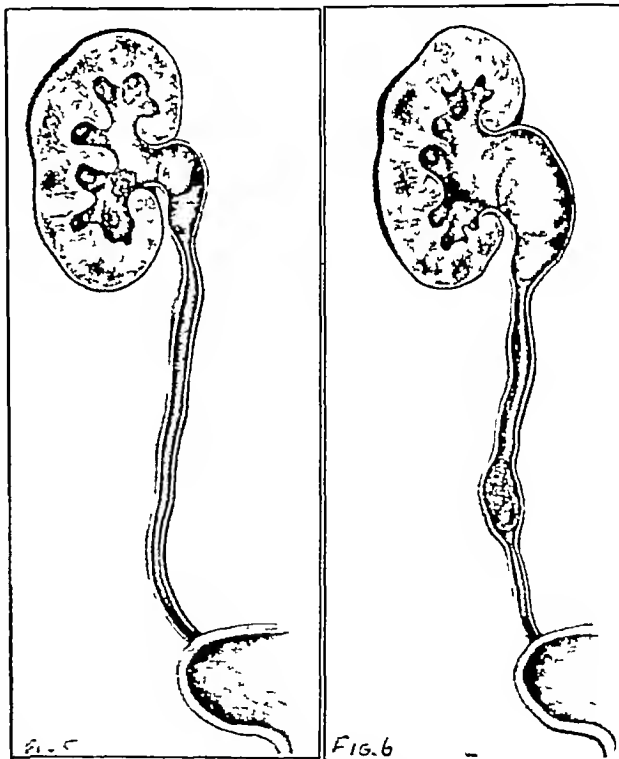


Fig 5—Intermittent hydronephrosis due to a calculus represented in a major calyx. No subjective symptoms present until the calculus moves to the ureteropelvic junction causing complete obstruction, pelvic distention and a typical renal colic. During the attack of colic the urine may be normal or contain a faint trace of albumen. In the intermissions the urine would contain pus and blood cells in varying amounts.

Fig 6—Large calculus impacted in ureter, with chronic partial obstruction and production of a hydronephrosis. Urine trickles past the stone so that there is not a complete block, thus there may be no acute symptoms.

tro-intestinal disturbances are frequently associated with the severe attacks of renal colic. Rarely we find a patient who has a distinct diarrhoea either immediately preceding or accompanying the other manifestations. Nausea is present in a large percentage of cases and vomiting is a factor in nearly all severe attacks. The vomiting is apt to be severe, so that everything ingested is returned and even severe retching with the emesis of bile when nothing is taken by mouth. So prominent may these symptoms be that one could be easily misled into mistaking these gastro-intestinal symptoms as indicative of gastro-intestinal pathology rather than that a calculus was the basis of the disturbance.

A feeling of abdominal distention with gas is often present and a very common experience is

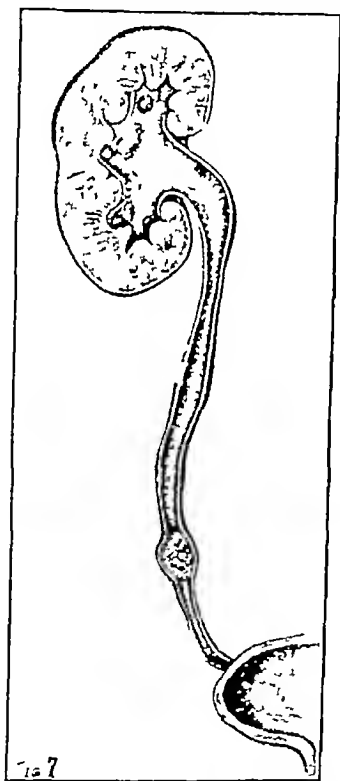


Fig 7—Calculus acting as a ball valve which when seated causes complete obstruction and colic. At other times may allow escape of urine with absence of subjective symptoms

to hear a patient state that while there is no desire to stool they think they would feel better if the bowels did move. The consideration of these symptoms of gastro-intestinal disturbance is of particular importance when differentiating between a stone and an acute appendix.

Urinary symptoms. Increased frequency and urgency of urination, either associated or alone may be present with a stone located in any portion of the ureter or in the kidney pelvis. When it occurs for the first time after previous attacks

of pain or when it is noted after a paroxysm has lasted for some time it is usually indicative of the passage of a stone down the ureter to a point close to the bladder. With the groin pain at times associated with stones in the kidney pelvis, and of which mention has already been made, the occurrence of urinary frequency under these circumstances is probably the only localizing subjective symptom that is at all consistent.

Inability to empty the bladder may be complained of. Usually on analysis it will be found that there is no retention, but that markedly increased frequency causes an attempt to urinate every few minutes with the discharge of only a very small quantity of urine and that is mistaken by the patient for inability to empty a bladder believed to be full. Chills, chilly sensations and fever are occasionally present but seldom are prominent.

Objective symptoms. Fever may be present to a slight degree. The pulse rate is apt to be increased proportionate to the intensity of the suffering. Of the objective symptoms, costo-vertebral and abdominal tenderness and rigidity are the most prominent. While usually not so marked as when found with acute intraperitoneal conditions it must be remembered that in some instances they may so closely simulate the latter as to make practically impossible a differential diagnosis. Particularly will this be true when as not infrequently happens an increased leucocyte count with a high polynuclear percentage is present with an uncomplicated stone. In a series of cases recently studied a leucocyte count of 15,000 was not uncommon and one case went above 30,000.

The X-ray is our great reliance for an accurate diagnosis and for localization of a stone but even here unfortunately negative results may count for little. Small or soft stones may not cast shadows and the size of the stone is no index of the severity of the symptoms. Happily with the improvement of technique and apparatus roentgenological examination is becoming more and more valuable as a diagnostic aid.

The cystoscope is of invaluable aid both in diagnosing and locating a stone and in giving information about the kidney on the affected and opposite side as well as disclosing other pathological complications. Occasionally a stone will be seen at the ureteral orifice making an absolute diagnosis possible.

Changes in the appearance of an orifice and of the mucosa about the orifice is of decidedly less importance than one would be led to believe from the literature. If changes are present they may be of considerable corroborative significance, but the absence of any change is of absolutely no value as evidence against the presence of stone and it is quite conservative to state that normal appearing orifices are in the majority.

When complete obstruction occurs in any part

of the tract above the bladder no urine will flow from the orifice. Observed during an acute paroxysm the ureteral orifice will be seen opening and closing exactly the same as it does incident to the discharge of urine into the bladder, differing only in the fact that no urine escapes.

A catheter may be obstructed by a stone. This offers very strong evidence as to the nature of the lesion and the exact location of the stone. When a large catheter is obstructed a smaller one may be manipulated past the obstruction and to the pelvis. Then residual urine may be found in the pelvis, the amount depending upon the length of time the obstruction had persisted and the completeness of the obstruction. The urine under these circumstances is usually of very high specific gravity and is apt to contain albumen and casts. However, it cannot be too strongly emphasized that a catheter may slip past even a large stone without giving any suggestion that a stone is present. A wax tip on a catheter passed up and down a ureter may show scratch marks on its surface from contact with a stone. This method is not wholly without chances of error and the finding should be considered only in conjunction with the other symptoms.

The nearest we come to perfection of diagnosis is by the use of a combined cystoscopic and roentgenological examination. With an opaque catheter in the ureter, stereoscopic X-ray plates will show a constant and close juxtaposition of the stone and the catheter shadows and with the few exceptions noted elsewhere such demonstration is an absolute prerequisite before operation.

Treatment. Treatment will depend principally upon the phase of the condition in which we find the patient, and to a lesser extent upon the general condition of the patient and by co-existing conditions. Seen in an acute attack of colic immediate relief is necessary and for this purpose morphine hypodermatically and in sufficient dosage is almost always necessary. It is very seldom that any treatment short of the injection of morphine will be of value and usually it is a waste of time to make use of lesser measures.

Chloroform by inhalation has been mentioned as needed in some instances, and while it has never been necessary in the writer's experience to resort to this, it cannot be too strongly emphasized that relief from the pain must be secured. Indeed, it is hardly necessary to emphasize this point to one who has seen a patient in the agony of a renal colic, whether the colic be due to stone or some other type of obstructing lesion.

Palliative measures, heat, locally by a hot water bag or poultice or by a full hot tub bath, acetanilid, phenacetine and drugs of such type are usually totally inadequate and attempts to give relief by such measures are complete failures, only prolonging the suffering. Such measures are justifiable only when used as adjuvants to the morphine.

Withholding morphine with the idea that a cer-

tain amount of pain is necessary for the expulsion of the stone is not justifiable; indeed, progress of the calculus down the ureter takes place probably to a greater extent in the intervals between attacks than during the colic.

A marked diminution in the amount of urine voided may occur and this may go on even to the point of complete suppression. In the presence of this calcaous anuria, operative intervention may have to be considered, remembering always that the index of the gravity of the situation is the diminution of the amount of urine and not the usual signs of impending uraemia, as the latter may be absent until just prior to a fatal termination.

Anuria may be due—

- I To the blocking of a single ureter
- II To simultaneous blocking of both ureters
- III To blocking of the ureter of the good kidney in the presence of a damaged opposite kidney, and,
- IV Possibly, to reflex suppression in the unblocked, undamaged kidney

Whatever the cause relief of the block is imperative and is best accomplished by drainage of the kidney pelvis on the affected side, by pyelotomy usually, but rarely it may be accomplished by an indwelling ureteral catheter. Removal of the stone may well be left for a later time when the critical period has been passed.

In the intervals between paroxysms decision will be made as to the course to be followed. Our subject is removal of the stone and here we have to decide between surgical intervention and expectant treatment, as stones are removed,

- 1 By spontaneous passage into the bladder,
- 2 Aided by cystoscopic manipulations,
- 3 By operation

In addition to the size and location of the stone, the age and general condition of the patient and the frequency and severity of the attacks are but a few of the considerations that present themselves.

The economic position of the patient may be of great importance, for given a patient upon whose daily earnings himself and others depend, it may be better in a doubtful case to advise operation with complete relief and an early return to his wage earning status, rather than to subject him to a period of waiting, indefinite both as to length and outcome. This must not be construed however as an argument for early operation except where the size of the calculus justifies doubt as to its spontaneous expulsion.

Unfortunately we have no scale of measurement to apply in the decision of such cases but must decide each case on its own merits in accordance with all the factors present and our own knowledge of the clinical course of like cases. Nor have we any premises upon which to prognosticate the number of attacks of colic that will occur before the stone will be expelled into the

badder, nor the length of time that will elapse before that happy outcome is consummated. Fluids in abundance, dietary restrictions, attention to the eliminative functions and rest are all logical therapeutic suggestions that are applicable. Heat as already suggested may help in mild cases and it augments the effect of morphine in the more severe ones.

Benzyl benzoate relaxes involuntary muscles and while it is doubtful that in itself it is of any practical value it may be of help as an adjuvant. Against its use is the distention of the abdomen that is of frequent occurrence. Spirits of turpentine in 10 minin doses, three times a day has probably the greatest reputation for exerting an actual influence upon the passage of stones, some writers stating that more stones pass with its use than without it. Glycerine in slightly larger dosage is probably second in popularity. Coconut milk and watermelons are but two of the many additional remedial agents that have been and still are seriously presented as possessive of beneficial therapeutic influence.

When we consider that a certain and probably a large percentage of those with calculi have attacks of renal colic and pass their stones without a diagnosis being made and that in those in whom a diagnosis is made a large percentage expel the stone spontaneously without even any cystoscopic help, it must be apparent that the percentage of stones that pass must be extremely large, and therefore any form of medication or plan of non-surgical treatment that may be instituted is most likely to be followed by the passage of the calculus.

Therefore any treatment believed to be successful would have to be tried on a very large number of patients, with proper controls, before the administration of such medication could be accepted as other than coincidental to the spontaneous expulsion of a calculus, rather than being a causative factor. It may well be questioned whether any treatment of internal medication has ever had any influence in preventing the formation or aiding the expulsion of calculi. The sincerity of any observer is no index to the accuracy of his observations or the logic of his deductions if his conclusions ignore the variables and laws of chance so apt to be important factors in all of our therapeutic problems.

Through the operating cystoscope we can cut with forceps or burn with the high frequency current, the intravesical portion of the ureter, thereby increasing greatly the size of the orifice and thus facilitate the passage of a stone into the bladder. Oil may be injected into a ureter to lubricate the path of descent of a stone. We pass successively larger bougies up the ureter hoping thereby to dilate and thus facilitate passage, and use various ingenious instruments of the type of the Lewis dilating forceps to the same end. These manipulations may tone so that its long

axis is more nearly parallel to the long axis of the ureter, they may break calculi into smaller fragments, and both of these results tend to promote expulsion.

Beyond this it is doubtful if anything practical is accomplished. The writer has on innumerable occasions been able to dislodge a calculus from the lower end of the ureter and either break it up in smaller fragments in the bladder or remove it whole with forceps, to the great joy of the patient and the not inconsiderable satisfaction of the operator. Such a happy termination of a calculus case is dramatic in the extreme but possibly it only anticipates by a short time a spontaneous happening.

If a stone is impacted by constrictions in the calibre of the ureter or if it is of such a size as to preclude its discharge into the bladder operative intervention should not be delayed. Fig 7 A pyelotomy, nephrolithotomy or ureterolithotomy as indicated by the position of the stone should be done. Before advising an operation every possible precaution must be taken to verify the diagnosis and establish the presence of a stone. With very few exceptions a shadow must be demonstrated and proven to be either in the kidney pelvis or in a ureter by a combined cystoscopic and roentgenological examination. Too much care cannot be taken to establish a positive preoperative diagnosis both for the patient's welfare and the surgeon's reputation.

There are few situations that will cause more embarrassment than the failure to find a calculus at operation after a preoperative diagnosis of stone. A good rule to remember is that a stone that will not produce a shadow on an X-ray plate will in all probability pass into the bladder. As possible exceptions to this rule the two following cases may be cited, each illustrating the superimposition of a stone shadow upon that of bone.

A 32 year old clergyman came under observation in October 1919. While with the A. E. F. during the war he had his first attack of severe pain in the left flank. The onset was very acute, the pain very severe, nausea and vomiting were prominent symptoms. The pain radiated down into the left testicle. Red blood cells were present in the urine. Many subsequent attacks followed during each of which he was completely incapacitated. In the intervals between attacks he was perfectly well. Repeated roentgenological examinations were negative as were several cystoscopic examinations. After his return to the United States he was sent to the Walter Reed Hospital for further study, and although repeated examinations were made no definite diagnosis was established, the attacks of colic in the meantime persisting. When seen by the writer further X-ray examination was negative. The general physical and laboratory examinations were also negative except for the presence of a few white blood cells in the urine. A further cystoscopic examination

was made showing a normal bladder. Catheters were passed to either pelvis readily, no obstructions were noted, and no residual urine was found in either pelvis. Each kidney secreted clear urine rapidly. No increased capacity of the left pelvis could be demonstrated and the urine from this side differed from the other only in the presence of a few white blood cells.

Distention of the left pelvis with fluid caused pain which the patient identified as being exactly the same in character and location as that experienced by him during his attacks of colic. A diagnosis of renal colic due to an intermittent obstructing lesion, probably a calculus, was made and operation was advised as it was felt that if a stone was not present some other lesion would be found to explain the symptoms and as the condition had persisted for such a long period an exploratory operation on the kidney would be justified. However, as the patient desired further attempts to make a more positive diagnosis additional X-ray exposures were made and as a result of a particularly long exposure a shadow was finally found superimposed upon the shadow of the last rib. Operations resulted in the removal of the stone and relief from the symptoms.

Another patient, a man 33 years old was referred in September, 1921, for diagnosis. In February of that year a profuse hematuria had lasted for a few days, without other symptoms. No treatment was instituted other than rest in bed and a bland diet. Two months later the patient applied for life insurance and was rejected because the urine contained albumen, casts, and red and white blood cells. Three weeks later the same conditions were found. Two months after the second and nearly three months after the first examination the urine was reported almost normal. About this time the patient noticed a stiff back which varied in severity during the two weeks it persisted. In August, six months after the hematuria, he had a severe attack of pain in the right upper quadrant, lasting, with periods of remissions for seven hours and then ceasing suddenly. He had several chills of moderate severity, slight fever, continuous nausea and severe vomiting while the pain was present. During the evening the pain recurred and although not so severe it was feared that an acute appendix had ruptured. The patient was transported a considerable distance to a hospital. A white blood count was made showing 32,000 white cells with a high polynuclear percentage. However, as blood and pus were found in the urine his symptoms were considered to be due to some condition in the urinary tract and the patient was kept under observation for a few days during which time his subjective symptoms cleared up and the blood count returned to normal. Several X-ray examinations were reported negative. Three weeks later at a cystoscopic examination an obstruction was demonstrated 14 cm up the right ureter

while on the left side a catheter passed to the kidney pelvis. Although this obstruction prevented the passage of the catheter upward it did not prevent the urine from coming down and specimens were obtained from each side. The specific gravity, total acidity, and percentage of urea, ammonia chlorides was identical from each side. Cultures from each side were sterile. The phloridizin test was positive on each side in 15 minutes, the phatalein test positive on the right in seven minutes, from the left kidney in five minutes, thus being practically the only difference noted. The catheter in the right ureter was withdrawn to permit the use of a smaller one in an attempt to get past the obstruction, but spasm at the ureteral orifice prevented the reintroduction of any instruments. At later examinations the same results were obtained and it was never possible to catheterize beyond the point of obstruction. Roentgenograms taken with opaque catheters in the ureter all showed the catheter reaching to approximately the same point, just above the lower border of the ilium, so that if a calculus were present its shadow would be superimposed upon that of the bone and under these circumstances it would be extremely difficult to differentiate the two shadows. The cystoscopic diagnosis was "An obstructing lesion in the right ureter, probably a stone, 14 cm above the bladder." Operation was advised in this instance on the ground that even if no calculus was found the lesion that was present required treatment. At operation a calculus was found and it was so impacted that it could not be moved either up or down the ureter.

Factors such as the frequency and severity of the paroxysms and the effect upon the general health of the patient may have to be considered irrespective of the size and location of the stone. A young woman of intelligent mentality came under observation in 1922, giving a history of repeated and very severe attacks of pain during the preceding four years. A positive roentgenological and cystoscopic diagnosis was made of a stone close to the bladder and in view of the long duration of the symptoms and failure to cause any change in the position of the stone through cystoscopic manipulations, operation was advised but refused. For a period of another year the patient had repeated recurrences at frequent intervals. Some of the attacks incapacitated her for days at a time. Then after a particularly severe paroxysm of pain of some twelve hours' duration she expelled the stone.

It is probable that the pain endured during this period and the danger she incurred of kidney damage were much greater than would have involved in an early ureterolithotomy. As in this instance patients may refuse operation, not infrequently quoting the experience of friends who have passed stones. Opposed to this will be patients impatient for operation after a first attack of pain who will state that they prefer the risk

of operation with the certainty of relief to the uncertainty of waiting. In such instances it would of course be folly for us to allow such impatience or desires influence us against our own surgical judgment.

The operative results are very satisfactory as a rule. The stone is removed, relief from the symptoms is assured and convalescence is usually uneventful. Some leakage of urine from the wound may appear, as a rule it is for a short time only, and the tendency is for the incision in the ureter to heal kindly even if not sutured. That exceptions to this rule may occur is to be expected. A young woman, 24 years old, of splendid physique and otherwise good health came under observation giving a history of colic and hamaturia, suggestive of calculus. The diagnosis was verified by stereoscopic plates with an opaque bougie in the left ureter. Two large stones were present, one close to the bladder, the second several cm above the first. It was impossible to pass a catheter above the stones so that no information was obtained as to the condition of the kidney. The upper stone was readily removed after isolation and incision of the ureter. The lower one however, was fixed in its position and could not be brought up to the ureteral incision.

Therefore the ureter was again incised immediately over the stone and the latter removed. Both ureteral incision were sutured with No 1 chromic gut. Cigarette drains to each ureteral wound were removed in 48 hours. Three days later the patient's temperature had reached 103° F and while no tenderness was present the skin about the wound appeared dusky. The sutures were removed and the wound reopened liberating a quantity of thick fluid. After this much pus and urine drained from the wound, the patient was quite sick, and had a septic temperature and a rapid pulse. As we had no knowledge of the condition of the kidney the question of a pyonephrosis came up. If such had been the case a nephrectomy would be indicated, but at a cystoscopic examination at this time a large catheter was passed up the ureter and an abundant flow of clear urine obtained. The chemical tests showed good functional activity and the urine contained very little pus. Thus a good kidney and a good tract from the kidney to the bladder were demonstrated and with this knowledge an expectant plan of treatment was followed with a good result, although the patient did not leave the hospital until six weeks after the operation.

ELECTIVE VERSION AND EXTRACTION*

By PAUL T HARPER, M D, F A C S

ALBANY, N Y

THE necessity for standardizing the indications for delivery by Version and Extraction and for prescribing the important steps in their conduct has prompted choice of the above subject for presentation before the Section, and what follows is offered as a contribution toward such ends.

For the contentions made and for the expedients employed in effecting delivery, the writer claims no originality. All are familiar, each being supported by accredited authority, and, for this reason, their exposition might appear unnecessary. But important clinical facts and matters of personal experience relative thereto cannot be restated too often, and this fact alone justifies their repeated presentation.

Internal Podalic Version is the procedure by which the child, presenting commonly by the head, is turned in utero by grasping its feet and making them advance until the knees are born. Appearance of the knees completes version, the child is "turned" when head, chest, abdomen, and lower extremities have been brought into line.

Version of the kind may well be followed at once by Extraction, and the latter practice is so common that breech extraction should be con-

sidered along with internal podalic version, although the two are separate and distinct operative procedures. "Internal Podalic Version and Breech Extraction," therefore, more accurately designates what is done when the child, presenting by the vertex, is made to advance and is born feet-first, than does the more familiar term "Delivery by Version."

Version and Extraction (shortening the accurate designation for purposes of discussion) have been practised from the earliest times and, if abdominal section be disregarded, they were the only means of artificial delivery available before advent of the obstetric forceps. Use of the latter unquestionably lowered mortality and morbidity attendant upon the earlier procedures carried out without the aid of anesthetics and without regard for sepsis, and version and extraction fell into more or less disuse, being looked upon as emergency measures the hazards of which might be assumed only in extreme cases. Such in the main has been the attitude of the profession for centuries, and it is only within the last decade that version and extraction have been strongly advocated as elective procedures.

The heartiest endorsement comes from a single source and so persistent and strong is it that its advocate urges practice of version and extraction

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not only in preference to extraction by forceps but also as the method of choice in terminating the overwhelming majority of labors regardless of actual need for operative interference

Whether such general employment of version as is advocated by Potter is or is not justifiable is a highly debatable question. However, that the utility of version and extraction has been immeasurably broadened within recent years, that valuable contributions to the technique of the operation have been made, and that for each a single operator is in the main responsible are propositions that may not be dissented from, and the actual place of version in obstetrics is the important clinical question of the day if for no other reason than because a distinguished obstetrician and a teacher of wide experience raises it.

The problem may be stated no less accurately as uneventful delivery and the usefulness of version and extraction in bringing it about, and the latter procedures are presented as contributions toward making delivery uneventful by actually decreasing the mortality and morbidity that might otherwise be expected were cases on the one hand, left wholly to nature or, on the other, accorded more conventional operative treatment.

At the outset, it is insisted that the writer is neither handicapped by prejudice against widening the field of version and extraction simply because the procedures are less conservative than the familiar methods of operative delivery of a generation ago nor, on the other hand, does he subscribe to "habitual version" simply because he has seen (which it has not been his good fortune to do) a master of the art accomplish entirely satisfactory results in cases wherein one of less skill and experience might be expected to have failed. However, this discussion is entered upon with the firm conviction that the utility of version and extraction is far wider than the majority of authorities are ready to concede—a conviction that is strengthened by knowledge that the speaker's own results in terms of mortality and morbidity have improved with wider application of the principles of internal podalic version and breech extraction.

The most striking feature of version and extraction is that their performance is a complete reversal of the natural process by which the child is born, and one of them, namely breech extraction, invariably entails risks to the child that the conservative obstetrician aims to minimize by performing prophylactic external cephalic version in primary presentation by the breech. Dangers in breech extraction *per se* arise from possible delay in delivery of the after-coming head, resistance to the advance of which is invariably occasioned by the fact that it is an unmodelled head that must engage, descend, and be born within a relatively short interval following birth of the navel.

Version and extraction, therefore, under con-

ditions that have denied the head the advantages of satisfactory moulding are procedures entailing risks to the child that one may unhesitatingly assume if the emergency warrants it but that one is not justified in assuming from choice.

Herein is believed to lie the fallacy of "elective version (and extraction)" as practiced by Potter, by whom the procedures are carried out at the beginning of or early in the second stage of labor and preferably after artificial rupture of membranes, under these conditions, maximum moulding of which available forces are capable has yet to occur. The procedure, therefore, entails risks which skill and experience can and doubtless do greatly minimize but which are so obvious that conservative practice will in all probability never subscribe to its performance as the method of choice in accomplishing delivery.

However, there are conditions wherein version and extraction are definitely indicated and at such times their benefits are fully realized only as the procedures are "elective" in the strict sense that they are carried out, from choice rather than from necessity, at a time when mother and child are good risks.

Returning to consideration of the combined procedures, it is true that there are difficulties and some dangers associated with the performance of version and of the extraction that follows, but it is no less a matter of fact that there are peculiar advantages attendant upon producing advance and delivery of the child by traction on the legs under certain conditions and, because of this, that version and extraction are on occasion procedures of choice.

Version entails the risks of infection, rupture of uterus, traumatic separation of placenta, prolapse of cord, and fetal fractures and dislocations, while breech extraction is always attended by the dangers of cervical and perineal laceration, fractures, paralyses, head injuries to the child, and asphyxia from delay in delivery of the after-coming head. These result in practically every instance from disregard for certain elementary principles of procedure. They are, therefore, highly preventable accidents, the ever-present dangers of which do not limit the availability of version and extraction as much as they emphasize the wisdom of adequate training and skill on the part of the operator who attempts them.

Under certain conditions, traction on the legs and extraction by the breech offer positive advantages over the application of forceps and on rare occasions, over spontaneous advance and delivery by the vertex.

The most conspicuous instance is offered by incomplete dilation of the cervix and high arrest of the presenting-part. Pelvic contraction invariably complicates the situation and it is quite as often relative as actual in type. For purposes of delivery, a pelvis with normal measurements is "relatively contracted" when over-large fetal

diameters must pass through it, and diameters of the kind are met in the deflexion attitudes as well as in prolonged pregnancy regardless of presentation. The primary difficulty, therefore, is disproportion, it is increased by thickness of the lower segment, with its incompletely dilated external os, that encircles the head, and arrest results. Spontaneous upward advance of the lower segment over the blunt presenting-part and complete dilation have already failed, and, if the case is left wholly to nature, the lower segment becomes retracted or the cervix becomes oedematous and possibly incarcerated.

Granted that artificial advance is indicated and, further, that forceps on the head is the alternative method of producing it, version and extraction present the following distinct advantages: first, complete dilation is easily accomplished under surgical anesthesia that version calls for (as complete relaxation is possible although undesirable as a preliminary to forceps extraction), second, upward advance of the fully-dilated cervix and the thinned-out lower segment is the natural consequence of passage through them of the smooth, roughly-cylindrical fetal body (contrasted with the irregularly-rounded but blunt head), and, third, the manner of advance of the head is such that its broadest transverse diameter (the biparietal) follows rather than precedes the shorter bimastoid diameter through the inlet with the mechanical advantage attendant upon causing a wedge-shape body to advance against resistance by its point rather than by its base.

Of the foregoing, the second is possibly the most important advantage, and it is believed to explain the frequency with which the undilated but dilatable cervix escapes laceration during version and extraction as contrasted with the damage done by advance of the blunt head and by the edges of the forceps blades when delivery is instrumental.

Skilfully performed version and extraction unquestionably occasion less cervical trauma than does the high forceps operation in equally competent hands, and because the after-coming head need never be called upon to advance through an incarcerated and edematous cervix in breech extraction, while in every high-forceps operation and in many of the high-medium variety disproportion between pelvis and passenger is increased by thickness of the enveloping lower segment, it may be argued that version and extraction are less dangerous to the child.

With the patient in a clinical second stage (preferably with membranes ruptured) long enough to be assured that the cervix is completely dilatable and that the presenting-part is satisfactorily moulded, delivery by version and extraction is preferable to high-forceps application. If one hesitates to make the procedure elective, it is imperative that it be carried out after a

single unsuccessful attempt at effecting delivery by traction on forceps.

In this group of cases are found posterior positions of the vertex, and bregma, brow, and face presentations with the biparietal diameter above the inlet—in fact, all cephalic presentations arrested high up wherein vaginal delivery is not contra-indicated because of pelvic contraction.

It is in high arrest of the presenting-part that cord complications are most common. Following rupture of the membranes, prolapse of cord along-side-of the presenting part occurs when the latter is momentarily displaced upward. The introduction and application of forceps not infrequently produce just such a result unless the precaution is taken to immobilize the head at the inlet while the instrument is being adjusted, and it is only through careful fetal-heart auscultation that occurrence of the accident is ascertained. It is true that upward displacement incident to version may result in cord advance, but the operator feels the prolapsed cord at once and his hand is in position to replace it at once or to accomplish immediate delivery when the latter is called for. Undiscovered cord prolapse is believed to be responsible for much of the fetal mortality incident to high-forceps operations that wider application of version and extraction can be counted upon to decrease.

In treatment of the persistent occiput-posterior arrested in the mid-pelvis, the choice between version and forceps rotation and extraction is largely a matter of individual preference that, in turn, is determined in great measure by the training and skill of the operator. However, in this connection the following are reasonable contentions. All other things being equal, the child is invariably a better risk advancing by the head than by the breech, and, in presence of the disproportion that commonly makes rotation difficult, careful attempts at instrumental rotation that may be carried out slowly and, therefore, with a minimum of violence are preferable to the more rapid and more forceful extraction that version under the circumstances invariably entails. One's easily-acquired enthusiasm for version must always be tempered with proper appreciation of its increased responsibilities.

In view of what has preceded, conservative practice would seem to call for a single, skilful attempt at instrumental rotation and advance, version and extraction being carried out unhesitatingly when the procedure of initial choice has proved unsuccessful.

After internal podalic version, the operator has quite perfect control over delivery of the child, and he can produce a relatively rapid advance, when indicated, with minimum danger to the child because tractile force is applied to the body at the sturdy pelvic girdle, while undesirable bony and lower segment pressures are exerted along changing levels of the child's body as but-

tocks, abdomen, chest and head advance. In forceps extraction, on the other hand, the head is subjected to firm, localized pressures throughout advance and tractive force is transmitted to the body at the structurally-weaker and more vital neck.

Accordingly, delivery by version and extraction is advisable in cases of impending fetal or maternal death from hemorrhage (provided the cervix is first removed as a barrier to advance), in cases of irreducible prolapse of cord with the head high and the cervix dilated or dilatable, in cases of premature labor due to hydramnios or multiple pregnancy where cord complications are common, and in cases where digital dilation under complete surgical anesthesia has been practised for the excellent purpose of terminating pregnancy complicated by rapidly advancing toxemia.

In labor obstructed by tonic contraction of Bandl's ring, version and extraction are indicated in cases where the ring is found in advance of the presenting part, for the reason that the latter is invariably high or actually disengaged. With the ring encircling the neck, the procedures have at least one definite advantage over delivery by forceps, namely, that version is possible only after such complete relaxation of the ring that subsequent extraction can be accomplished against a minimum of resistance and therefore with least effort. Forceps extraction, on the other hand, involves the risk of bringing about complete disappearance of the ring by advance of the shoulder girdle through it, and the latter requires increased tractive force that subjects the child to dangerous forceps-pressure on the head.

Danger of undesirable cerebral pressure is to be considered when the relatively-compressible head of the premature child is called upon to serve as an actual cervical dilator. The latter occurs when membranes rupture, before complete dilatation, and strong contractions force the head well into the partially-dilated cervix. The combination of surgical anesthesia, manual dilatation, version and extraction not only relieves pressure of the kind but it also gives promise of safer delivery than if the occasional case of the kind were left wholly to nature.

In some cases of multiple pregnancy, delivery by version and extraction is the method of choice. In double vertices with heads above the inlet, the dangers of cord complications and of locked heads that are not uncommon even in spontaneous advance, are obviated when head of the first child (so designated because its level is slightly in advance of the other) is displaced and held upward while version and extraction are done upon the second. In delivery of the second child presenting by the vertex, undesirable delay occasioned by inertia following spontaneous or artificial delivery of the first is eliminated and the second stage is terminated with minimum risk of

cord prolapse as the child is turned and made to advance by the breech.

Finally, internal podalic version is indicated in practically all transverse presentations seen late in the second stage with fully dilatable cervixes and before the uterus has become tonically contracted. In cases of the kind, a shoulder presents and impaction is the inevitable consequence of expectancy. Dangers of version and subsequent extraction are negligible provided the membranes are still intact, they are increased when the liquor amni has escaped, and they are grave when a tonically-contracted uterus complicates the situation. In transverse presentations seen early, introduction of a large hydrostatic dilator is the procedure of choice; it makes possible the performance of external cephalic version that gives promise of ultimate spontaneous delivery.

Attempt has been made to show the extent to which version and extraction are elective procedures. By as much their utility is broadened, and benefits accrue to mother and child because neither has been subjected to the dangers of persistent and unsuccessful attempts at forceps extraction or to those resulting from protracted second stage.

Version and extraction should benefit mother and child. Therefore, they may not be attempted under conditions making their conduct dangerous even though an emergency seems to demand heroic measures. It may not be amiss at this point to state the simple proposition that artificial delivery is the only surgical procedure entailing the possibility of a 200 per cent mortality. No less to the point would seem to be the contention that, in sheer hazards to mother and child, no method of operative delivery even approaches untimely and unskilfully performed version and extraction.

The procedures are contra-indicated in tonic, or "capped", uterus, in retracted uterus, and in tonic contraction of Bandl's ring, wherein turning may result in rupture of the uterus or in injury to the child, and in pelvic contraction, either relative or actual, of a degree making delivery of a living child by the vaginal route improbable. Of types of contracted pelves, the flat justo-minor offers greatest resistance to passage of the after-coming head. Shortening of all diameters denies the head the advantages of lateral displacement by which its passage through the inlet of a simple flat pelvis is facilitated.

The abnormalities considered are primary causes of obstruction, so designated because delivery may not or cannot be accomplished in their presence, but, of them, retracted uterus and tonic contraction ring respond so satisfactorily to treatment by profound surgical anesthesia that version and extraction can be done with reasonable safety following their relief, provided associated conditions warrant their practice.

Finally, version and extraction are contra-in-

licated in two additional groups of cases first, those in which simpler and less dangerous procedures give promise of shortening the second stage and decreasing maternal suffering as satisfactorily as could version, and, second, those in which reasonable opportunity has not been offered the head to accommodate itself to the shape and size of the pelvic cavity by moulding. In other words, the practice of version and extraction is contra-indicated where a simple forceps extraction or conservative stimulation by pituitary extract gives promise of uneventful delivery, while, for arbitrarily carrying out the procedure at the beginning of the second stage, before rupture of the membranes and even before the patient has been afforded an opportunity to terminate her labor spontaneously, there would seem to be no excuse. Under such conditions, the procedures are "elective" only in the sense that the operator chooses to carry them out the truly elective operation is one that is selected because it is safer than expectancy or than some other procedure he might select. It is only by performing an unnecessarily large number of abdominal sections that one can make wide use of early second-stage version and extraction and present infant-mortality statistics that are at all satisfactory. The size of the unmoulded head can be disregarded when it is to be delivered through the uterine incision.

The conduct of internal podalic version is governed by the well-defined principles that follow.

First, intra-uterine exploration is permissible only as perfect aseptic precautions are observed. Because an extensive and highly vascular area is exposed to direct contamination from without, it is imperative that hands, arms, and gloves, and particularly the field through which they are introduced, be made and kept surgically clean. In vulnerability and seriousness of results of infection, endometrium and peritoneum are quite alike.

Second, there may be no uterine obstacle to turning. While such persistent pathological states as retraction, tonic uterus, and tonic contraction-ring contra-indicate version, even normally active uterine muscle almost invariably acquires tone as soon as a hand is inserted in the lower segment, and undesirable force is required to overcome uterine resistance unless the precaution is taken to secure deep, surgical anesthesia before the uterus is invaded.

Third, the occurrence of accidental separation of the placenta and cord prolapse must be guarded against. They increase the hazards ordinarily associated with version, even though the cervix is fully dilated and immediate delivery is possible when they occur.

Fourth, the position must be known before the uterus is invaded. The dangers of placental separation, of cord pressure, and especially of infection are minimized as the operator's hand is

carried directly to the point at which he may expect to meet the feet.

Just how each step in the performance of version should be carried out is relatively unimportant provided one is governed by the principles briefly considered. For instance, choice of anesthetic and choice of hand with which to grasp the feet are details that individual preference, based upon experience, may be permitted to dictate, but that the anesthetic actually produce complete relaxation before version is attempted and that the hand in the uterus be used for purposes of version rather than intra-uterine exploration are features of the operation in regard to which there may be no difference of opinion.

The following details of procedure are recorded because, first, they meet the requirements of version and, second, they have been found helpful in its successful conduct.

- 1 The patient's buttocks are brought to the edge of the delivery table. Her legs are separated and each is held, with foot just below table level, by an attendant who supports a foot by one hand and a knee by the other. The advantages are as follows: the patient lies in a modified Walcher position that facilitates version by lengthening the antero-posterior diameter of the pelvic inlet, the maternal position can be easily and speedily changed as conditions warrant, and, lastly, the patient strains against arms that can yield rather than against stirrups that are fixed and the field is correspondingly less disturbed. When attendants are unavailable, the feet rest upon chairs placed with backs to the delivery table.

- 2 The vulvo vaginal outlet, perineum, inner surfaces of thighs, pubes and, lastly, anus are scrubbed with soap and water and flushed off with antiseptic solution, the bladder is emptied by catheter, towels are draped about the field, and a sheet of medium size is placed over the abdomen.

- 3 Continuous administration of ether and the foregoing preparations are begun at the same time. The excitement stage is passed and a quiet field assured by the time the patient is draped. The anesthetic of choice is ether. It relaxes uterine muscle more quickly and more completely than chloroform or nitrous oxide and it is safe for the prolonged administration that cases of retraction or tonic contraction-ring demand. Further, the primary, fetal-heart-stimulating effect of ether is of decided advantage where version is to be followed by immediate extraction. It is desirable that the anesthetic be administered slowly. No attempt either at digital dilation or at version may be made until the musculature is completely relaxed and, in the presence of even slight retraction, until beginning pupillary dilation is noted. Cases of tonic uterus and advanced retraction not uncommonly demand 30 minutes of surgical anesthesia before version may be attempted, and,

although one may hesitate to subject the patients to such deep and prolonged anesthesia, the hazards of the latter are unquestionably less than those of forcible version against resistance than can be removed in no other way. As in all obstetric operations, the question whether the anesthetic be administered by a trained anesthetist or by one reasonably experienced is of less importance than that of willingness or unwillingness of the assistant to bring about as deep anesthesia as the procedure calls for.

4 Digital dilatation of the vulvo vaginal outlet is begun as soon as the patient is draped, and it is carried up to the point where the operator can insert his cone-shaped hand without perineal laceration. But dilatation should not be carried too far. On one hand, undesirable over-stretching with more or less permanent loss of vaginal and pelvic floor tone may result, and, on the other, delivery of the aftercoming head can be so conducted that all but minor degrees of perineal injury are prevented.

5 The cervix is examined to determine dilatation of the external os and the degree of obliteration of the internal. Its thickness and the presence of lower segment tone are determined by palpation. In the presence of even slight muscle-tone, the region of the contraction ring must be explored for evidence of tonicity. It is only under deep, surgical anesthesia that the contraction-ring fades out and complete, digital dilatation can be brought about. Version should not be attempted until the loosely-clenched fist can be brought through the lower segment and cervix with ease. As wide dilatation makes it possible for the position to be determined with absolute certainty.

6 The presenting part is immobilized, if necessary by counter-pressure above the symphysis, and the membranes are ruptured artificially. Even light engagement brings about a relatively slow escape of liquor amni and lessens the dangers of cord prolapse. The alternative procedure, namely, rupture of the membranes high up and the practice of version while the fluid is escaping, would seem to increase the hazards of cord accidents without proportionately adding to the ease with which version can be done.

7 The head is grasped by the "uterine" hand, and displaced upward and toward an iliac fossa—the right in right positions for instance. This maneuver helps in turning the child and is of immeasurable value as a test of complete uterine relaxation that must obtain before version may be attempted. If resistance is met, the presence of retraction is probable, and deeper anesthesia must be secured before a further attempt is made. The head that should be raised easily is held displaced while the "outside" hand, over the fundus, directs the feet toward the inlet where they are met by the "inside" hand. The latter grasps the child's feet between its first and second and third

fingers, the external hand now being used to hold the head in an iliac fossa. Version is completed by a combination of downward traction on the feet and upward pressure on the head exerted by the abdominal hand.

The feet should be made to advance toes-downward in order to favor advance of the back (and occiput) toward the front. At this point, the administration of ether is discontinued. Traction is persisted in until the knees appear at the vulva, when version is complete.

Use of the outside hand in the manner described facilitates version and at the same time lessens the extent of intra-uterine advance of the other hand, and its advantages in version at full-term are apparent. In premature labor, the aid is unnecessary. One or both legs may remain high in spite of outside pressure upon them, and to grasp them the uterine hand may have to be carried upward to the fundus. Both feet are to be brought down. Traction on a single foot doubles the risk of injury to ankle and hip, increases the difficulties of keeping the child's back toward the front, and makes it possible for the other leg to assume positions that may actually interfere with version. The "half breech" is efficient, even if unsafe, as a dilator, but it has no place in internal podalic version.

The position of the arms is disregarded. Since the head is kept flexed, the arms may be assumed to maintain their physiological position of general flexion. "Extended arms" is secondary to advance and does not occur until the shoulder girdle reaches the lower segment and pelvic inlet in the course of extraction. A prolapsed arm should be replaced and disregarded. Such treatment is far less hazardous than the application of a sling to the wrist for the purpose of preventing or of treating possible extension met at extraction. The ultimate position of a replaced arm is problematical, and dislocation or fracture might readily result from forcible downward traction upon it.

With the completion of version, the fetal heart must be auscultated to determine its rate and regularity. Rates below 100 and above 160 are indicative of developing intra-uterine asphyxia. The double-foot presentation may now be left to nature and a spontaneous delivery, or breech extraction may be done. Expectancy is permissible in the presence of normal fetal-heart sounds and returning uterine contractile efforts. Extraction is imperative in the presence of approaching asphyxia. It is desirable in the overwhelming majority of cases because, on the one hand, the operator has perfect control over the advance and delivery of the child and, on the other, spontaneous advance may be indefinitely postponed as a result of artificial inertia that the anesthetic is responsible for.

It is imperative that there be no uterine ob-

stacle to the relatively rapid advance that breech extraction calls for, and much of its attendant fetal mortality is believed to be due to the wholly avoidable difficulties met when breech extraction is attempted through a cervix just short of complete dilatation and through a lower segment presenting even slight retraction or tone. In the presence of uterine resistance of the kind, deep ether anesthesia is again secured, and complete uterine-muscle relaxation awaited.

It follows that extraction following version will commonly be done without the aid of efficient, expulsive contractions, and loss of such a desirable, supplementary force must be compensated for. Diffuse, fundal pressure must be depended upon to take its place.

If the cervix is found to be completely dilated and the lower segment thinned-out and drawn upward, the return of uterine contractions may be awaited before delivering the breech. If the child was in good condition at the completion of version, there is no necessity for haste, because the danger of cord pressure is negligible, and maximum expulsive efforts plus firm, fundal pressure are most important factors in producing uneventful advance because they help to keep the head well flexed and the arms, therefore, in place across the chest.

8 With the assistance of the forces just referred to, the breech should be delivered with relative ease. Resistance to advance means returning lower segment retraction or presence of the cord between the thighs, and the latter is so common following internal podalic version and the consequences of disregarding it are so serious that one may not proceed with extraction without satisfying oneself by palpation (if the buttocks are not yet in sight) that the child is not astride the cord. Immediately clamping and cutting of the misplaced cord make advance possible and eliminate the dangers of evulsion or placental separation that are possible consequences of attempts at "pulling down a loop of cord and delivering one leg through it."

Following delivery of the legs and the breech, a towel wrung from an antiseptic solution is wrapped about them. Hot towels about the body as it is born serve three purposes: first, they keep surface of the child's body warm and prevent premature inspiratory efforts that the relatively low room temperatures invite; second, they increase the efficiency of the operator's grasp on the child and, therefore, make it possible to decrease firmness of it, and, third, they lessen the dangers of contamination of the operator's hands.

The back should be kept toward the front to obviate the highly undesirable delivery of the after-coming head occiput-to-the-rear, and all that is required to secure such advance is to make the legs advance toes downward. The breech naturally advances sacrum-to-the right or to-the-left because the shoulder girdle engages and de-

scends through an oblique diameter of the inlet.

9 The most satisfactory advance from breech to angles of the scapulæ is that brought about by an excess of propulsive force from above over tractile force from below. The former tends to keep head and arms flexed and facilitates their later delivery, while traction from below favors extension of the head that allows the arms to become extended when lower-segment and pelvic resistances are met. Any deficiency in expulsive efforts due to inertia, either spontaneous or that produced by anesthesia, must be compensated for by increase in the amount of diffuse, downward pressure exerted upon the fundus. With no trained assistant available, the operator may well employ both hands in making pressure at the fundus after providing for momentary support of the child's legs and the breech. The soft, compressible lower body offers little resistance to advance, and progress from breech to scapulæ may be relatively rapid.

The moment of appearance of the navel must be noted. At this time circulation through the cord may be presumed to be completely shut off and oxygen is denied the child until air can reach it through the mouth. It follows that progress from navel to mouth must be relatively rapid, and, while the rule is not an arbitrary one, no more than four minutes should transpire before free passage of air to the child's mouth is provided for. This means that the mouth must reach the outlet or that air be conveyed to it by means of forcible depression of the perineum. A long, posterior, vaginal retractor serves the double purpose of keeping blood and other fluids away from the mouth and allowing air to enter it, and it should be ready for immediate use.

Because of the danger of intra-uterine asphyxia, extraction may not be conducted with too great deliberation, although the four-minute interval may be reasonably prolonged when the operator knows that the fetal-heart action was strong and regular and neither too rapid nor too slow when extraction was begun. For reasons that are apparent, the child born by elective version and extraction may manifest only slight asphyxia when the mouth is born as many as eight or nine minutes after the appearance of the navel, while the child born after repeated and ineffectual attempts at delivery by forceps may be so deeply asphyxiated within three minutes following the appearance of the navel that it cannot be revived. On the other hand, one is not justified in forcible and therefore more or less precipitous completion of breech extraction simply because the interval referred to has transpired and the head is still high. At such times, the danger of fetal injuries under heroic treatment is far greater than that of intra-uterine asphyxia under extraction completed with extreme care and without undue haste.

Potter emphasizes the necessity for being

"deliberate, careful and above all gentle in every step of the operation", and the general excellence of his results is due in part at least to the application of this principle. However, undue delay is no more permissible than undue haste, and that neither mistake be made it is advisable that each in minute following the appearance of the cord be called off by one previously designated to watch for it

After delivery of the breech and until the shoulders are born, the general direction of the child's body is downward and forward. It is supported by either forearm, when the palm of the hand can be brought in contact with the child's chest for purposes of palpating the heart beat

10 With the appearance of the angles of the scapulæ, the presence of the relatively broad shoulder girdle in the pelvic cavity retards advance. At this point it is imperative that spontaneous expulsive efforts or downward fundal pressures be exerted in order that the head and arms may be kept flexed against the lower uterine segment and the pelvic resistances that tend to extend them. Because excess of tractive force from below against the resistances mentioned results in extension of head and arms, the shoulder girdle should not be forcibly drawn into the inlet

The arms are found in one of three positions. First, they are folded across the chest with elbows just within the vulvovaginal outlet. Second, they are moderately extended at the shoulder and moderately flexed at the elbow. Third, they are completely extended and lie straight alongside of the head. The first is the natural position, met where expulsive efforts are highly efficient and where there is a minimum of maternal soft-part resistance. Delivery of the arms is readily accomplished by supporting the child's body, by inserting a finger just within the vagina, and by exerting traction on the wrists. Arms in the second position are partially extended, the attitude being accounted for by advance of the shoulders against the natural uterine and pelvic resistances. Uterine-muscle resistance is characterized as "natural" because it is presumed that pathological resistance due to retraction has been removed before delivery of the shoulders is attempted. But, while pelvic resistance cannot be eliminated, it can be utilized to excellent advantage in correcting the very abnormality it is in part responsible for

One or the other shoulder is commonly anterior. Because of the descent of the shoulder girdle is an oblique diameter, the back is rarely found directly to the front, but, if so found, the body should be rotated slightly until one or the other shoulder is anterior. The anterior arm is delivered in the following manner: the shoulder is rotated backward by digital pressure against it from the front supplemented by gentle turning

of the body, the elbow and arm, momentarily retarded by pelvic resistance, are directed obliquely downward and forward across the chest as the shoulder recedes and the moderately extended extremity begins spontaneous reduction as the elbow approaches the outlet, traction is now applied at the elbow, and the flexed arm, directed downward, forward, and inward, escapes beneath the symphysis. Delivery of the second arm is accomplished in the following manner: the upper chest and shoulder girdle are grasped firmly and rotated until the scapula of the momentarily posterior arm is brought under the symphysis (the direction of rotation being opposite to that practised in delivery of the first arm), and the extent of the rotation is such that the elbow is almost invariably found just within the vulvovaginal outlet, from which location it is readily delivered by applying traction at the elbow. If one has succeeded in rotating the body sufficiently, it is inconceivable that the arm remain even moderately extended, and for this reason its delivery is never difficult.

With arms in the third position, namely completely extended, advance is obstructed because the head and arms over-fill the pelvic inlet. In management, the initial step is to cease all tractive efforts on the breech and to discontinue downward pressure at the fundus. The arms are then delivered as in the previous position, although rotation of the shoulder girdle is supplemented by digital pressure exerted at the elbow in such a way that the joint is directed obliquely downward and forward in the direction of the opposite shoulder.

With arms presenting any degree of extension, each is delivered beneath the pubic arch because such management lessens the dangers of perineal laceration and contamination of the operator's hand. When an attempt is made to deliver the extended posterior arm first, the greater part of a hand must be introduced into the vagina. This almost invariably results in otherwise avoidable perineal injury, while the member is brought into such intimate contact with the anus that contamination is probable.

11 With delivery of the arms, the neck is inspected for the presence of loops of cord about it. If these are found, the cord is promptly clamped and cut. But of greater clinical importance is palpation of the anterior lip of the cervix. The latter structure together with the lower segment not infrequently manifests some tone, especially after vigorous efforts at delivery of the arms, which offers resistance to the advance of the head. The cervix appropriates the space between occiput and shoulders, and its grasp may be firm.

The head is made to engage by exerting traction on the child as it lies astride the operator's arm. Cervical resistance is most effectively removed by exerting upward digital pressure

against the rim of the cervix in the attempt to make the latter advance upward behind the symphysis and over the occiput as the head is held firmly against it. Following removal of the cervix as a possible barrier to advance, the child's body is raised in the general direction of the maternal abdomen and supported by an assistant who grasps it through a sterile towel. The advantages of this procedure will be considered presently.

12 The advance and delivery of the head are accomplished almost entirely through the employment of artificial forces. By this time the head is in the inactive, lower segment and practically no expulsive efforts are brought to bear upon it. Available forces are, first, fundal pressure, second, traction on the lower jaw, and, third, traction on forceps, and each has its advantages as well as limitations.

The dangers of the first and second, namely cerebral and lower jaw injuries, are minimized and satisfactory advance occasioned in the majority of cases as fundal pressure and traction exerted by one or two fingers in the mouth are applied gently but firmly and in approximately equal amounts. On occasion, however, the disproportion between head and pelvis amounts to enough to retard advance and to make delivery possible only through the employment of undesirable force at each point. Here, utilization of the third force, namely cephalic application of forceps, eliminates the dangers of localized pressures and assures delivery that is prompt but not precipitous. The application of forceps gives the operator quite complete control not only over the rapidity but also over the direction of the advance of the after-coming head, and it is indicated whenever the condition of the child demands prompt delivery. For use on the after-coming head, the advantages of the thin and solid blade forceps are apparent.

The head is born by ever-increasing flexion as the occiput is retarded at the symphysis and the sinciput travels the relatively long posterior border of the pelvic cavity, and it is to assure delivery of the head in perfect flexion that the child's body is placed with back toward the maternal abdomen. The body does not rest on the abdomen. As marked hyperextension might result in cervical injury, although even more extreme extension is met in presentation by the face, and "broken neck" in cases of the kind is not even a conventional complication.

With the child's body in the position mentioned haste in delivery of the after-coming head is rarely indicated because, with the mouth no lower than the low-mid-pelvis, air can be conveyed to it by inserting a posterior vaginal retractor. Further, quite perfect perineal control can be exercised and perineal injuries, accordingly, reduced to the minimum. As a matter of fact with due allowance made for deficiencies in moulding after-coming heads should occasion no more

perineal damage at delivery than fore-coming heads.

Delivery of the head by downward and forward traction on the shoulders, exerted by the first and middle fingers of the operator's "strong" hand, is never justified. Injuries to the cervical vertebrae, to the brachial plexus, and to the clavicles are invited when strong tractile efforts are required, and extensive perineal injury is inevitable if delivery of the head is precipitous. Under the circumstances, one is unable to flex the head or, better, to hyperextend the body upon it as rapidly as the passage of the head through the vulvovaginal outlet calls for, and the chin is accordingly directed through rather than over the perineal body. Non-physiological mechanism of delivery of the after-coming head is unquestionably the most important factor in production of the extensive perineal lacerations so common in delivery by the breech.

With the mouth at the outlet, the perineal stage is arrived at, and, in order that laceration may be minimized, it is desirable that the head be delivered slowly. The body of the child is held upright, blood and mucus are removed from the mouth by sponging, and the heart beat is carefully noted. The only indication for haste in delivery is asphyxia pallida with slow and weak heart action, and the only reason for clamping and cutting the cord early rather than late is to be able to place the child at once in a hot tub. The latter should be made ready as extraction is begun, moist heat being the most efficient and available fetal-heart stimulant.

Reference has already been made to valuable contributions to the technique of version and extraction made within recent years by Potter, and of them there are several that are worthy of especial emphasis. They are the modified Walker position, complete anesthesia preliminary to version, traction on both legs, rotation of the body so that each arm can be delivered "anteriorly," and, lastly, the importance of deliberation as each step of the procedures is gone through with. They have been considered in detail, and their advantages, if not apparent at once, will be appreciated as soon as a fair trial is given them.

Internal podalic version and breech extraction without asphyxia of a degree calling for treatment, and without injury to the child's extremities or to the maternal soft parts, is one of the most satisfactory experiences in operative obstetrics, especially so if the child is full-term and the mother a primipara, and experiences of the kind come not because of mere dexterity in carrying out certain maneuvers that some one else has carefully recorded, but rather because the operator makes proper choice of cases for vaginal delivery in the first place, knows the mechanism of labor in the second, recognizes abnormalities in it early rather than late in the third place and lastly possesses reasonable skill in applying mechanical principles to meet mechanical defects.

PYLORIC OBSTRUCTION IN INFANCY *

THEW WRIGHT, M.D., F.A.C.S

BUFFALO, N. Y.

ALTHOUGH the literature of the past ten years is replete with articles on the subject of pyloric stenosis in infants and the symptomology and diagnosis have been clearly set forth and the medical and surgical treatment ably discussed, its importance and frequency are still unappreciated by a large percentage of the profession. There are still too many infants buried with the diagnosis of marasmus or inanition and the subject should be repeatedly discussed, until the clinical picture and appropriate treatment are as familiar to the general practitioner as are those of appendicitis, for lack of recognition is quite as disastrous while prompt and proper treatment is fully as efficient.

Careful observations have placed the incidence as 1 in 200 (Hill)¹ and yet many practitioners have told me that they had never seen a case in twenty or thirty years of practice.

Apart from the relatively rare cases due to peritoneal bands causing obstruction of the pylorus or duodenum, pyloric obstruction in infancy is due to a combination of two conditions which are always associated but whose relative importance in the production of symptoms varies with the individual case, namely, pylorospasm and hypertrophy of the pyloric muscle.

Much confusion has resulted from the attempt to sharply differentiate these two and make two distinct types of cases, the purely spasmodic and the congenital hypertrophic.

My observations have led me to agree fully with Holt who believed that such a division is not permissible and that the congenital hypertrophy is the essential underlying factor in all these cases, the spasm being an added secondary condition. In some cases the spasmodic factor greatly outweighs the hypertrophic and in others the reverse is true.

Although an accurate differentiation between these two conditions might at first thought appear essential practically it is not so, for the stenosis may be as complete in one condition as in the other and the early treatment is the same and if it is not promptly successful, the later treatment is likewise identical for the two conditions.

In persistent stenosis due principally to pylorospasm there is always a slight hypertrophy of the pyloric muscle, but not enough to produce a distinctly palpable tumor.

In the second type there is actual hyperplasia of the circular muscle of the pylorus

often reaching four to five times the normal thickness.

There has been much discussion as to whether the hypertrophy is a pre or post natal affair. The weight of evidence is in favor of its being congenital, for cases have been found in premature stillborn infants. That the hyperplasia continues after birth is also most likely, for there is a striking uniformity in the reports that the actual size of the pyloric tumor corresponds to the age of the child. Some writers have held that the hypertrophy was due to spasm and hence acquired, an hypothesis which fails of appeal to one who remembers his youthful efforts to cause hypertrophy of his biceps.

The importance of spasm in the hypertrophic cases is in the production of symptoms through completing the stenosis. The presence of hypertrophy of the pyloric muscle even to a degree sufficient to produce a readily palpable tumor does not of itself mean stenosis and symptoms, as is proven by the persistence of such a tumor for weeks after the cessation of symptoms in cases successfully treated medically (Holt⁶).

It is not my purpose to discuss etiology. Many theories have been advanced and are covered in the writing of Holt⁶, Scudder¹¹, Downs³, Richter¹², Stiles¹³, La Fetra¹, Pfandler² and others.

The clinical picture of pyloric stenosis is so typical that it is only the exceptional case that will be confusing. An apparently healthy normal infant begins, usually during the second to fourth weeks of life, to vomit its feedings. The fact that most infants of this age are still nursing explains the often repeated observation that the majority suffering from this condition are breast fed. The vomiting increases in frequency and soon assumes the projectile type. In advanced cases the vomitus may be propelled four to five feet. Vomiting may occur shortly after each feeding or may be postponed until after several feedings they are ejected at the same time. There is always gastric retention, i. e. but little if any food passes the pylorus. With the persistence of vomiting the stools become less frequent, until milk stools are absent and nothing but mucus or small meconium-like stools are passed. The urine becomes scanty and concentrated, for the infant vomits water as well as milk and rapidly becomes dehydrated.

Soon after vomiting has become well marked visible gastric peristalsis appears, which together with projectile vomiting is absolutely diagnostic. The peristaltic wave starts under the left costal margin and travels downward

* Read at the Annual Meeting of the Medical Society of the State of New York at Syracuse, May 13, 1925.

to the right and across the median line to disappear in the right hypochondrium. In a well marked case it is by no means uncommon to see two waves at once and for them to be $\frac{1}{2}$ to $\frac{3}{4}$ of an inch in height. They usually follow promptly the ingestion of food or water and persist intermittently until the child vomits, with an explosion that projects the vomitus several feet.

If these symptoms have existed for some days or weeks all the signs of inanition are present, wrinkled face and skin, dry tongue, sunken eyes, etc. Such a picture may be produced by marked spasm with slight hypertrophy or by true hypertrophic stenosis. In the latter case palpation after the stomach has been emptied either by vomiting or tube will in the vast majority of cases reveal an olive shaped tumor at the site of the pylorus. The tumor can best be palpated by using the left hand and from the patient's left side. Downes states that the tumor is palpable in practically every case. This is doubtless true if sufficient care and time are given to its finding. Not considering the demonstration of the tumor essential in all cases I have operated upon several in which I had failed to palpate the tumor, although it was well marked. Occasionally a large right lobe of the liver will render palpation difficult.

Before the advent of the Rammstedt operation surgical interference in cases of pyloric stenosis was accompanied by so high a mortality that it was justly reserved for cases of true marked hyperplasia and more importance was attached to the actual palpation of the tumor than is, in my opinion, called for today. An emaciated, dehydrated babe with projectile vomiting and marked visible gastric peristalsis and a history such as I have mentioned is suffering from pyloric stenosis and requires prompt relief. If that relief cannot be quickly brought about by medical treatment it should be given the benefit of surgery without delay, for it will be just as dead from persistent spasmodic obstruction without true hypertrophy enough to give a readily palpable tumor, as though the tumor were as big as one's thumb. With an operation so simple as the Rammstedt and with so little risk, I have no hesitancy in advising its performance even in cases that I feel are 90 per cent spasm. We can be confident of prompt and permanent relief and in a few hours have a babe that is taking its full quota of food. I know nothing more striking or even spectacular than the contrast between the contented baby quietly assimilating its food on the day following operation and the wretched, starved child of the previous twenty-four hours, with its big eyes and wistful expression, lest it be

the change wrought in the exsanguinated child by a well timed blood transfusion.

Approximately 1-3 of the cases I have operated upon have been cases of spasm with some hypertrophy, though not enough to give an easily palpable tumor. Not one of the cases has died and each has made a rapid convalescence and completely justified the operation. Several of these were in as extreme a condition of starvation as any of those with a marked hyperplastic pylorus. Hill⁶ in his series of cases noted practically the same proportion of pylorospasm and true hypertrophy.

The diagnosis of hypertrophic stenosis should but rarely present any difficulty. First of all the age of onset should direct attention to its possibility, this in nearly all cases falling within the second and sixth week of life.

The diagnostic points in order of their importance are

- 1 History of increasingly progressive vomiting of projectile type
- 2 Marked visible peristalsis
- 3 Abnormal gastric retention
- 4 Wasting, constipation, scanty urine
- 5 Palpable tumor

Although some observers, notably Strauss, place importance upon X-ray study, I feel it to be unnecessary and often an unjustifiable procedure. It certainly is unnecessary for the diagnosis of obstruction and may in extreme cases be a fatal procedure either through its severity or through delaying operation.

Strauss¹⁰ claims that by X-ray study he can differentiate between those cases requiring surgery and those which will recover under medical treatment. I contend that in many cases that might recover under prolonged medical treatment surgery is much more prompt and surely efficient and in the type of case that promises well under medical treatment causes practically no mortality. That instead of weeks of careful feeding and nursing during which the patient's condition may at any time suddenly become desperate or death may occur surgery offers a prompt and efficient means of cure. Within a week the baby is nursing and retaining all its food as a normal child, and it is permanently cured with no danger of the relapses that are so common following successful medical treatment. I do not mean that every babe presenting symptoms of pyloric stenosis should be operated upon immediately. If the condition is recognized shortly after the onset of symptoms medical treatment should be tried. All degrees of stenosis are met with and many mild cases, if properly handled, will be successfully treated without recourse to surgery.

Many cases in which the spasmodic factor is the predominating one respond promptly to

atropin, gastric lavage and careful feeding Others to the thick farina feedings The more severe cases can only be successfully handled medically when the most expert nursing is available Remarkable results have been accomplished in some cases by the thick feeding method (Porter¹⁰, Sauer¹³) but its proper application is complicated and time consuming and relapses occur

Cases that are seen early may properly be treated medically for a week to ten days provided they show a slight steady gain If, however, they remain stationary in weight or lose slightly during this time I believe they should be operated upon

Cases that are first seen in the later stages should I believe be operated upon without delay Hypertrophic pyloric stenosis is as definitely a mechanical obstruction as any other type of gastro-intestinal obstruction and should be so considered and it should be recognized that its mortality is as elsewhere a mortality of delay

The following observations of Goldbloom and Spence⁴ made upon a large series of cases at the New York Babies Hospital show this point most clearly

1 The duration of symptoms prior to operation is probably the most important single factor affecting the prognosis When symptoms have lasted less than four weeks, the mortality is one third as great as when they have lasted four weeks or longer

2 The mortality in artificially fed babies is more than three times that for breast fed babies

3 In infants weighing 7 pounds or less, the mortality was three and one-half times as great as in those who weighed more than 7 pounds

4 The mortality for breast fed infants who vomited less than four weeks and who had lost less than 20 percent of their best weight is almost nil The fatalities which occur are due to accidents unusually avoidable when the operation is done by a skillful surgeon"

Holt⁶ places the mortality of the condition under medical treatment at 58%

Surgical treatment Of all the procedures that have been tried for the surgical relief of this condition the Fredet-Rammstedt is in my opinion the operation of choice

Gastro-enterostomy is difficult, unnecessary and although efficient, leaves an abnormal situation, is attended by a high mortality rate and has been properly abandoned The more complicated methods of pyloroplasty are unnecessary as they are no more efficient in relieving the obstruction than a well performed Rammstedt

My experience in operating for this condition is limited to 75 cases of which the first five were pyloroplastics according to the method of Nicoll, all of which recovered My sixth case early in

1914 was so nearly moribund at the time of operation that after cutting the muscle as the preliminary step of the Nicoll operation both my anesthesiologist and I felt that further operation would be promptly fatal I therefore merely separated the cut muscle and closed the abdomen expecting the baby to die To my surprise he made a rapid convalescence and is today a healthy vigorous child Shortly after this the Rammstedt¹¹ operation came to my attention and since that time I have performed it exclusively

I have lost four babies Three of the cases were apparently moribund at the time of operation and died within the first twelve hours, though there were others in the series who appeared in as desperate a condition who made good recoveries The fourth was a case in apparently fair condition, which died suddenly three hours after operation This case was operated upon under ether and we felt the death was possibly thymic but as autopsy was denied the exact cause of death is unknown Several of the cases were in an extreme marasmic state and were brought to operation as last resort

The series does not represent selected cases and no thought was given to statistics Three of the cases that died might have been denied operation without criticism but for the recovery of at least two previous infants whose condition had been adjudged hopeless by my colleagues and myself prior to operation

Since the death of the third child I have used local anesthesia in all cases, feeling that the elimination of inhalation anesthesia lessened the risk although I have made the observation that occasionally ether seems to have a somewhat stimulating effect.

I grant that infants stand ether anesthesia well but I also feel that ether or chloroform introduces an added risk to child or adult and agree with Bevan that this operation should always be performed under local anesthesia if possible

I have found that it can usually be readily performed under 1/2% novocaine although in certain cases I have used a small amount of ether for a few moments if there was any tendency for the intestines to protrude into the wound Fortunately the sicker and younger the child the more easy the performance under local The two important points in successful use of local anesthesia namely, the allowance of sufficient time for the anesthesia to occur and gentleness in handling the tissues apply here as in adults and one who is accustomed to the use of local in adult surgery will have little difficulty in working with it here

The operation is simple but there are a few technical points that should be borne in mind,

First Immediately before operation the stomach should be thoroughly lavaged with one percent soda bicarbonate solution This might

to the right and across the median line to disappear in the right hypochondrium. In a well marked case it is by no means uncommon to see two waves at once and for them to be $\frac{1}{2}$ to $\frac{3}{4}$ of an inch in height. They usually follow promptly the ingestion of food or water and persist intermittently until the child vomits, with an explosion that projects the vomitus several feet.

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Many cases in which the spasmodic factor is the predominating one respond promptly to

the starved patient's tissues possess an abnormal digestive power I do not know, but similar observations have been made by others

The post operative treatment of these cases is of extreme importance. It must be remembered that the child is primarily suffering from starvation and that the indication is to supply food and drink as quickly as possible. One distinct advantage of local anesthesia is that it permits of much earlier feeding.

One half ounce of water is given one-half hour after operation. If retained, as is usually the case, breast milk one-half ounce, if obtainable, is given one hour later. It is of great advantage to have breast milk, but if none is available either milk or a formula the skim milk, barley water and sugar may be used. The milk feeding is given every three hours, increasing by 2 C C at each feeding. Midway between feedings water is given in equal quantity. The feedings are thus gradually increased until the average case at the end of twenty-four hours the child is taking an ounce at a time. The advanced cases are always dehydrated and it is often wise to supplement the water intake by hypodermoclysis. Proctoclysis is rarely of use. If possible the child is put to the breast one week after operation and nursing supervised so that not more than 2 ounces are taken at a feeding during the second week. Thereafter the child may take its fill and can in the vast majority of cases be treated as a normal child.

We meet, of course, with difficult feeding cases after a Rammstedt operation as well as in infants who have had no pyloric stenosis and they are handled in exactly the same manner as though there had been no surgical procedure.

It is the exception to have vomiting persist after operation. Many cases will regurgitate once or twice during the first twenty-four to forty-eight hours retaining, however, practically all their nourishment. If vomiting occurs and is at all marked it had been my experience that prompt gastric lavage and the semi-erect posture will stop it. A teaspoonful of castor oil twenty-four hours after operation will remove gas and mucus and aid in the establishment of normal intestinal action. The tendency to diarrhoea seen in the more advanced cases will usually respond to modification of the feedings.

The incision is left undisturbed for nine or ten days unless there is some indication for earlier inspection. At this time the retaining sutures are removed.

One case in this series was complicated by continuous and profuse oozing from the skin incision, although the child when a week old and eight weeks prior to operation had been

circumcised without showing any tendency to abnormal bleeding. The hemorrhage was sufficiently profuse to suggest the possibility that a small vessel in the abdominal wall might be its source. I therefore reopened the skin incision but no bleeding vessel was found. After resuturing the skin the hemorrhage persisted in spite of two subcutaneous injections of father's blood and one transfusion of the mother's. I therefore again opened the skin incision and packed it with Coagulen and sterile gauze after which bleeding ceased. Two days later I removed the gauze pack and strapped the skin and prompt healing took place.

Conclusions

- 1 Congenital pyloric stenosis is sufficiently common to deserve more general recognition.
- 2 Mild cases may be treated medically.
- 3 Severe cases and those not rapidly responding to medical treatment should receive prompt surgical treatment.
- 4 The simplest and best surgical treatment is the Rammstedt operation.
- 5 The advantages of local anesthesia are sufficient to make it the method of choice.
- 6 The mortality of congenital pyloric stenosis is the mortality of delay, the operation itself having practically none.

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at first thought appear superfluous in a child that is constantly vomiting. It must be remembered, however, that the stomach is not completely emptied and one is often surprised to find the amount of stagnant gastric contents that will be withdrawn. Furthermore there is often a hypersecretion of thick tenaceous mucus in the stomach which if not removed may cause partial plugging of the pylorus during the first few hours after operation.

Second The infant should be kept thoroughly warm during operation as the only factor that can produce shock in the properly handled local anesthesia case is chilling from undue exposure.

Third An ordinary rubber nipple stuffed with cotton moistened with sugar solution should be in readiness. If this is given to the child as soon as the peritoneum is incised I have found that in nine cases out of ten the short intraperitoneal handling can be done with no evidence of discomfort and with perfect ease. I have done 51 of these operations under local anesthesia and since adopting this simple procedure have in forty of these cases used no ether at any stage of the operation nor have I had any evidence of imperfect anesthesia.

Fourth I find that the location of the abdominal incision is of importance. I make a high rectus incision in the outer third of the muscle. This is done so that the major portion of it is over the right lobe of the liver. The liver is readily held out of the way during the delivery of the pylorus and after the pylorotomy is done and the stomach replaced there is no difficulty in closing the peritoneum, as the liver makes an ideal natural spatula and there is no tendency for intestine or omentum to force its way into the line of suture, as when a lower or more mesial incision is made. I have not seen attention called to this point but have found it well worth observing.

Fifth The pylorus is most easily delivered by means of a blunt hook as advised by Strauss.¹⁶ The pyloric end of the stomach often bulges into the incision but it is thick and difficult to grasp so that time is saved by gently hooking it up.

Sixth The pylorus and adjacent portion of stomach and duodenum should be delivered through the incision and held in the thumb and forefinger of the left hand.

Seventh At the junction of upper and middle third of the anterior surface of the pylorus, which is at its least vascular part, a longitudinal incision is made beginning at the duodenum and extending well into the prepyloric portion of the stomach. This incision should be most superficial, scarcely more than a millimeter in depth. Through this and with the blunt end of the scalpel the entire thickness of the pyloric muscle should be split until the mucosa is clearly seen throughout the entire length of the pylorus. The mucosa should

then be gently separated from the overlying muscle on both sides of the incision until it herniates well above the peritoneal level. This is accomplished by stretching the muscle wound with a blunt hemostat and shelling the mucosa away from the inner surface of the muscle with the handle of the scalpel. The efficiency of the operation in the markedly hypertrophic cases depends upon the thoroughness with which this step is carried out. Many observers have called attention to the danger of opening the duodenal mucosa unless great care is exercised in handling that end of the incision. The duodenum is very thin at its beginning and the change from hypertrophied pylorus to thin duodenum is very abrupt. I can testify that the danger is a real one for while calling the attention of my students to the possibility of its occurrence and proceeding with great care I opened it myself. The accident need however cause little concern if noticed, for the pouting mucosa can be caught with a clip and a ligature will readily close the opening. A careful inspection should always be made for such a possible opening for if not repaired peritonitis might easily follow.

In the cases in which spasm is the main factor the pylorus is more vascular than in the marked hypertrophic cases. In the latter type the pylorus is ischemic and there is practically no bleeding at all, in the former there may be considerable oozing. I have always found that this could be controlled by pressure of gauze wrung from hot water and have not as yet found occasion for the running suture over the cut muscle edge as suggested by Downes⁸ and Hill⁵.

This finishes the operation and the pylorus is returned to its place. There is no need to suture omentum over the pyloric incision nor is there in my opinion any necessity for a more complicated pyloroplasty.

Eighth The peritoneum and posterior sheath of the rectus is then repaired by a continuous catgut suture and just before tying the last stitch the peritoneal cavity is filled with warm saline.

Ninth Before closing the anterior rectus sheath three through and through silkworm sutures are passed extraperitoneally to be tied over a thin roll of gauze after the skin is sutured. This precaution I feel is necessary because of the fact that several cases have been reported in which the abdominal wound has opened, as it did in one of my earlier ones. In this case the wound separated on the third day and although chromic catgut had been used there was not a vestige of it to be seen. The gut was a commercially prepared gut of excellent quality and other samples of the same lot were tested and proved perfect. There was no infection in this case and after resuturing, the wound healed nicely and the child made a good recovery. Whether

license to practice midwifery When she submitted her first application, it was not regular as she stated that many of the cases which she presented—in lieu of a diploma—had been attended under the instruction of her late husband, and could not be signed as required, owing to the fact that he had died four years previously Upon the recommendation of the health officer, her first license was issued February 27, 1915 In 1915 she was visited by a nurse from the department. She was not co-operative from the first, and very reluctantly answered questions, openly resented the inspection and failed to show equipment or license The nurse reported her to be most erratic and really practicing as a physician She told the nurse that she was a Quaker minister, that she did no harm, that she only relieved the sufferings of humanity, and that no one could stop her She stated that she was an artist, author, music teacher and public speaker, and that she had graduated from several colleges In her home were large quantities of medicine and surgical instruments which, she said, were her late husband's

On June 28, 1915, Dr Williams, then Deputy Commissioner, wrote to Mrs S and advised her that a midwife's license gave her no authority to practice medicine, and asked her to accept the advice and warning

Nurses from this department visited Mrs S from time to time, and reported that she was said to be practising medicine, but there were no specific complaints filed The physicians, presumably on account of their loyalty to Dr S, were silent in regard to her actions, and it was reported that two of them protected her by signing death certificates of cases dying in her practice She had always taken cases in her home, when she so desired, and had held office hours three times a day, furnishing medicines for every ill In the absence of definite charges, Mrs S's license was renewed each year until toward the close of 1921, when she was reported by the health officer as having performed a circumcision The Commissioner thereupon directed that her license be withheld, and she was accordingly notified, but Mrs S did not stop her midwifery work nor her practice of medicine She has delivered more than 300 cases since her license has been taken away Until recently her late husband's sign has been in the window but she removed it about a year ago Her practice has not been confined to one city but extended throughout the county, and has included the following cases, as reported to the State Department of Health

1 Circumcision, followed by severe infection, which was later treated by the health officer

2 Diphtheria, diagnosed by her as "contagious sore throat," and so treated until too late for antitoxin and child died

3 Scarlet fever, diagnosed by her as "acid rash," and so treated until discovered and reported to health officer

4 Septicaemia, following childbirth, treated by her until too late and patient died

5 Syphilis, diagnosed and treated by her until discovered to be in a very communicable stage, and the patient removed from a restaurant

6 Measles, diagnosed and treated Board of Health placards house upon her recommendation without any further investigation

7 Failure to report birth of baby born dead, age between seventh and eighth month gestation, and baby buried without burial permit Mother treated for months and samples of medicine obtained

8 Heart disease and rupture—boy, seventeen years of age, treated and died in her home without medical attention

9 Heart disease—treating a 12-year-old girl, giving two kinds of tablets to build up heart muscle Child has been taking these tablets for four years

February 8, 1922—Commissioner referred case to Attorney General's office, because of her general defiance and specifically because of her treatment of a case of diphtheria in which the child died

May 31, 1922—Again appealed to Attorney General's office, for action on above case

June 30, 1922—Ruling requested from Attorney General's office re supplying Mrs S with birth certificates That office replied that they should not be supplied to her

March 3, 1923—Whole matter of her continued defiance again referred to the District Attorney's office by the health officer, specifically because of her treatment of a case of puerperal septicaemia in which patient died, also because of treatment of scarlet fever diagnosed by Mrs S as "acid rash"

March 1, 1924—Trial by jury, specifically for failure to report a stillbirth and for practising medicine

March 12, 1924—Again appealed to Attorney General's office, because of failure to indict in above case. Attorney General's office requested list of births reported by Mrs S since license was refused and list of over 100 cases was handed to that office

June 21, 1924—Affidavits on births reported, secured by Miss T given to Attorney General's office

November 5, 1924—Again appealed to Attorney General's office for advice re supplying

SOME INCONSISTENCIES IN THE PUBLIC HEALTH LAW AND THE DIFFICULTIES IN ADMINISTERING IT

MATTHIAS NICOLL, Jr, M D
ALBANY, N Y

This is neither a plea for greater official power or increased prerogatives, nor the expression of a desire to escape the performance of any duty, now imposed by law upon the Commissioner of Health of the State. I simply wish to bring before this Society and spread upon the record certain facts affecting the public health of the state, which should be something of an incentive to an effort to straighten out inconsistencies in the Public Health Law, and make that part of it which governs the practice of medicine and other professions really effective in protecting the public health against fraud and incompetence.

Article II, Section 4, of the Public Health Law, defines the general powers and duties of the Commissioner of Health, among them, he is charged with the enforcement of the Public Health Law and the Sanitary Code. Articles VIII, IX, X and XI, of the Public Health Law, relate solely to the practice of medicine, dentistry, veterinary medicine and surgery, and pharmacy, respectively. These articles prescribe the qualifications for the legal practice of the various professions, and set forth penalties for infractions of the Public Health Law, and of certain sections of the Penal Law. Whose duty it is to collect evidence and bring charges against law-breakers, is not designated, although under Section 174, Article VIII, incorporated medical societies or county medical societies are expected, by inference, to furnish such evidence since the law provides that any fines collected, as a result of the complaint of a medical society, shall be paid to the latter, in lieu of expenses incurred. The sections of the Public Health Law referred to are just as much a part of the whole law as those which relate to the control of infectious diseases or other obvious duties of a health officer, and yet I desire to point out that the State Commissioner of Health has, by administrative practice, absolutely nothing to do with carrying them out—that lies entirely in the hands of the Board of Regents and its agencies as, in my opinion, it should.

It is true that many complaints against unlicensed practitioners are received by the Commissioner of Health, and by local health officers referred to him. Such complaints have been, as a rule, in turn referred to the State Department of Education or directly to the local district attorney. I shall not be deemed guilty of betraying any secret when I tell you that, in the vast majority of instances, and for reasons, some of which I shall touch upon later,

the results have been negative in so far as legal indictments are concerned, although it is true that in many cases the community has been relieved of the activities of a charlatan who is certain, however, to appear in some other place.

The Commissioner of Health should always be willing to cooperate with other departments of government for the protection of the public health, but should be relieved of responsibility for carrying out the provisions of a law with which, by custom and practice, he has absolutely nothing to do. I shall be glad to have the cooperation of this Society in my purpose to have Articles VIII to XI, of the Public Health Law, transferred to the Education Law.

By Article VIII-A, the licensing and registration of midwives of the state, except in the City of New York, is placed under the authority of the State Commissioner of Health. Such authority has been sustained by the Supreme Court of the State. Under it, the Commissioner has taken over the supervision of more than 400 midwives in the 57 counties of the state, and has prescribed rules and regulations for the conduct of their work. As a rule, these women are doing their work conscientiously and effectively, and unquestionably meet the needs and wishes of certain classes of our population—especially the foreign-born. From time to time, it has been necessary to refuse the renewal of the license—which is given annually—or to deprive a midwife of a license. This never fails to bring about a legal battle, attempts to use personal and political influence and, in a number of instances, the surreptitious continuation of practice without a license. Occasionally, a midwife's license has been refused because she has been engaged in the practice of medicine or even surgery.

I think it may be of interest to this Society to cite two cases somewhat in detail which, while they involve principally the practice of midwifery, yet to my mind illustrate, very clearly, the weakness of the legal machinery available to bring about prosecution and conviction of offenders against the Medical Practice Act or the practice of midwifery.

The following summary has been made, for me, by the supervising nurse of the State Department of Health, who is directly in charge of the activities of midwives.

Mrs S, resident of a third-class city, first came to the attention of the department late in 1914, when she applied and was granted a

EDITORIALS

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THE ANNUAL MEETING

The annual meeting of this Society will be held in the Waldorf-Astoria, New York City, on March 30th, 31st and April 1st. The scientific program, published in this issue, indicates that the sessions of the sections of the Society will be full of papers of unusual interest and justifies a record-breaking attendance.

On account of the very great success of the Thursday session on Tuberculosis last year in Syracuse, the Committee on Scientific Work wisely decided to test out at this meeting the same general plan and will present Syphilis from every point of view at that session.

It would seem wise in these days of specialism and near-specialism that the Medical Society of the State of New York, made up very largely of general practitioners, should conclude its annual meeting with a session in which the unity of the Society should be strikingly emphasized and the

necessity of a broad clinical viewpoint clearly demonstrated.

Osler said "I often tell my students that it is the only disease which they require to study thoroughly. Know Syphilis in all its manifestations and relations, and what remains to be learned will not stretch the pia mater of a megalocephalic senior student."

The Committee has therefore striven to present this subject—*Syphilis*—on Thursday, April 1st, in a way which will be most helpful to every member of the Society, no matter what his field of practice.

Such a demonstration—probably the most complete ever presented in this country—will repay manifold, even hundredfold, in knowledge and worth-while technique any expenditure of time and money by those fortunate and wise enough to attend. The halls of the Waldorf-Astoria should be crowded to the doors for this meeting.

Mrs S with silver nitrate and also concerning the slips of paper on which Mrs S submitted birth report data for the Registrar to copy

April 6, 1925—Whole case of her continued defiance again referred to Attorney General's office for action

August 24, 1925—Appealed to Attorney General's office for action and upon advice from that office, Miss T was sent for affidavited evidence, looking toward another trial

October 13, 1925—Affidavited evidence and facts in case presented to Grand Jury, specifically for practise of both midwifery and medicine without a license Failed to indict

On December 21, 1925, the Attorney General wrote the following information regarding this case

"I find that this case has been presented to grand juries at various times, which grand juries have failed to indict the defendant, either on the charge of practising medicine without a license or of practicing midwifery without a license

"From my conversations with the District Attorney and his two assistants, there seems to be a feeling among the people in the city of friendliness towards the defendant and her practice This feeling, of course, is reflected in the grand jury, and may have been one of the contributing factors in the failure of the various grand juries to indict her

"I am advised by the District Attorney and his assistants that the people she has attended are practically all friendly to her, and disinclined to say or do anything which may embarrass or injure her

"This matter was also tried out in the city court, which failed to convict her on the charge of practising midwifery without a license

"I am also advised that the witnesses subpoenaed before the grand jury maintain that she is capable and gives good services in her practice of midwifery I believe from my conversations with the District Attorney and his assistants that the people have not made out a case against her for practising medicine, but have made out a case against her in the practice of midwifery, but the grand juries seem to be loath to and do refuse to indict her"

The second case is somewhat more encouraging, though its satisfactory culmination has been reached through the expenditure of considerable money, time and effort

In 1922, a certain midwife's license was withheld because she had performed an abortion The patient gave all the information before witnesses—but on a promise that the statements would not be used, and no legal action could be taken Early in 1922, the midwife employed an attorney to force the Commissioner to issue a license to her, and a mandamus order was directed to the Commissioner to that effect The case was argued at the May term of the Supreme Court, Appellate Division, and the decision was handed down in the September term "emphatically sustaining the discretionary powers of the Commissioner to issue or withhold annual licenses to midwives as provided in the Public Health Law" Nevertheless, this woman continued to deliver cases and did not report the births Reports were received, from time to time, that she was performing abortions but such evidence was difficult to secure City court records disclose that the woman was convicted four times, once for violation of the Sanitary Code and three times for infractions of the Public Health Law On January 5, 1926, she was sentenced to one year in Auburn prison for performing an abortion This case illustrates very well the difficulties which are encountered and the time that is expended in order that a habitual offender against the Public Health and Penal Laws may be adequately and justly punished, and the community protected In this case, the final result was effected largely through the indefatigable work of the City Health Officer

I am aware that the State Medical Society will, at this session of the legislature, renew the effort to provide a working machinery for upholding the Medical Practice Act, and protecting the people of the State against fraud and charlatanism The facts that I have presented are by no means unique, but may be of some slight service in emphasizing the weakness of our present machinery in producing results of any real value or the unnecessary time and effort involved in achieving them

While Priestley analyzed gases and developed the modern art of chemical analysis, Lavoisier showed the composition of water and the nature of fire, and their relation to oxygen, and developed the foundation of the modern science of chemistry as distinguished from its art. It had long been known that when metals were heated in the air, they were calcined—that is oxidized, and that when the calcined product was heated with charcoal, the metal was recovered, and fixed air—carbon dioxide—was produced. The common interpretation of this phenomenon was that phlogiston was added to the metal during calcination, and was given back to the air when the metal was restored. But after Priestley discovered oxygen, Lavoisier gave out the modern theory that calcination was oxidation, and that when deoxidation occurred, the oxygen united with the charcoal and produced the fixed air.

The active investigations of Priestley extended through a period of over thirty years—a generation of time—and yet he clung to the phlogiston theory to the end of his days, although his own discoveries had supplied the principal material for its overthrow. But Priestley was a kindly man, and he entered into no controversy over the subject. It must be confessed that the facts so far as he knew them could be explained by the phlogiston theory, provided one could carry in mind the complicated modifications that were necessary in order to maintain it. However, the final acceptance of the modern theory required only the substitution of the word oxygen for phlogiston. It may be that Priestley's theological training influenced him to cling to the belief in

imaginary substance which no one could identify or weigh or measure.

Most of Priestley's chemical apparatus is preserved in the University of Pennsylvania and in the Smithsonian Institute in Washington. But many of his personal effects are in the possession of his kinfolds in Northumberland. There are his microscope with a single lens, microscope slides mounted in bone frames each containing a series of five or six preparations, and his telescope. A memento of peculiar interest is the magic lantern with colored slides, crude but artistic, and mostly scenes of home life, which were used for the entertainment of the children of the family at Christmas and other special days. The preservation of these mementoes speaks volumes for the beauty of his home life and the esteem in which he was held by his family. A few days before his death he wrote "Few persons, I believe, have enjoyed life more than I have done."

The centennial of Priestley's discovery of oxygen was celebrated on August 1, 1874, by a meeting of the Chemists of America in Northumberland. On the same day a statue of Priestley was unveiled in Birmingham, England, on which occasion Thomas Huxley said "If the nineteenth century is other and better than the eighteenth, it is in great measure to him and such men as he that we owe the change. If the twentieth is to be better than the nineteenth, it will be because there are men among us who walk in Priestley's footsteps. Such men are not those whom their own generation delight to honor; such men in fact rarely trouble themselves about honor, but their work will live as long as time endures."

MEDICAL SCHOOL ENDOWMENTS

Higher education is now largely diverted from its former object of supplying the spiritual needs of the people to that of ministering to them in their physical and mental abnormalities. But the change is not so great as it might seem. Pastors during Colonial days were much more than pulpit orators, they were the leaders of their communities in education, in science in business, and in statesmanship. They led the settlers to new fields, and they fanned the spark of independence in Revolutionary days. Many pastors were also physicians to their flocks, and most of them were practitioners of such applied psychology as was known in their day. Colleges were founded for the purpose of supplying pastors who were educated along all lines of science that were then known, and beneath their veneer of denominationalism the pastors had a broad knowledge which enabled them to guard against the quacks—medical, mental, and spiritual. How

well these educated pastors built is shown by the fact that our churches, educational systems, and medical schools are the results of a natural development from seeds planted in Colonial days by the leaders of institutions of higher learning.

The training of physicians is the phase of higher education that is now the most widely advertised among the people, for every person must come into intimate contact with a doctor at some time during his life. The needs of medical schools are now emphasized as never before, and universities are conducting campaigns for millions of dollars of endowments, with every prospect of success.

A medical school was a source of financial profit in the days when it consisted of merely a lecture hall and a dissecting room, and an annual tuition of one hundred dollars yielded a large balance to be distributed among the professors who owned the school. But with the develop-

THE DISCOVERY OF OXYGEN

Physicians will recall that when they were medical students, they were taught in an impersonal way that oxygen was discovered by Priestley in the year 1774. It is with a thrill that one reads in the January number of the *Journal of the Iowa State Medical Society* that his great-grandson, Dr James Taggart Priestley died in Des Moines on December 11, 1925, after a long life of usefulness and honor spent in the practice of medicine and in high administrative offices in his State Society and the American Medical Association. The *Journal* also states that this Dr James T Priestley had a son who died in 1904 after practicing medicine ten years, that two grandsons are now medical students in the University of Pennsylvania, and that several members of the Priestley family in previous generations had been physicians.

As one reads the biographies of the members of the Priestley family, one is struck with their hereditary characteristics. Of Dr James T Priestley, the *Iowa State Journal* says

"If the special characteristics of Priestley are recalled, all will agree that the striking feature is his versatility. The rare faculty of adapting himself to all conditions in every circle, lay or professional, cultured or illiterate, is his. He easily dominates by the charm of his personality. Travel has been his hobby, and there are probably very few regions of the globe open to the traveller with which he is not familiar. His knowledge of human nature and broad culture have been strong elements in his development as consultant and physician."

These characteristics seem also to have belonged to Joseph Priestley, the discoverer of oxygen, who was a minister of the Gospel in an unconformist Church of England, and came to America in 1794 at the age of 61 on account of the difficulties arising from the French Revolution, but his decision to emigrate was probably influenced by the fact that his three sons were already settled in Pennsylvania. He died at the age of 71 in Northumberland, Pennsylvania, in 1804 while serving as pastor of a Unitarian church in that town.

Joseph Priestley was a pastor during all his active life, but he was deeply interested in all phases of natural history, on which he wrote much as well as on theology. He began the chemical study of gases in the year 1767 when he lived next door to a brewery where he could obtain a ready supply of carbonic acid gas. He seems to have held no scientific appointments, and to have received no assistance from colleges or endowments, but he devised his own apparatus and paid the bills out of his own meager resources. He continued his studies in Pennsylvania, and was the close friend of Benjamin Franklin.

Priestley's name is linked with that of Antoine Laurent Lavoisier, who was an amateur in chemistry and made his investigations while discharging his duties as an official in scientific departments of the French Government. He fell a victim to the Reign of Terror in 1794. The work of Priestley and Lavoisier must be considered together in order to understand what they did.

The ancient idea was that all matter was composed of four elements—earth, water, air and fire, representing solids, liquids, gases and heat. Solids were analyzed one after another in a crude way, and a considerable practical knowledge of metals was developed. But water, air, and fire defied analysis until Priestley and Lavoisier found the key to their secrets.

About one hundred years before their time, the crude conception of fire as an element had been replaced by the theory of 'phlogiston', which is derived from the Greek *phlox*, flame. About all that the phlogistic theory amounted to was the substitution of the word phlogiston for fire in the list of elements, and the assumption that phlogiston was a constituent of all matter, which became perceptible when burning occurred. Lavoisier proved the inconsistencies of the phlogiston theory by the use of accurate balances by which he showed the unchangeableness of the weights of the constituents that enter into chemical reactions. He was also an investigator of the phenomena of heat in association with the astronomer La Place, and had he not been sacrificed by the ignorant revolutionists, he would probably have discovered the constancy of the heat involved in chemical reaction.

The outstanding work of Priestley was the analyses of air and other gases. Carbon dioxide, the product of ordinary combustion, was known as fixed air, and was considered to be air deprived of phlogiston, and therefore incapable of supporting combustion. Hydrogen, the gas given off from metals which were attacked by acids, was called inflammable air.

Priestley performed a great number of experiments and investigations with what he himself said was largely an aimless purpose, for he had no preconceived theory which he wished to prove. He simply made experiments and recorded their methods and their results. The manufacture of bone black by the distillation of bones and horns yielded an ammoniacal liquid called spirits of hartshorn. On heating the liquid, Priestley got what he called alkaline air—ammonia—from which he synthesized sal ammoniac—ammonium chloride—by its treatment with hydrochloric acid. He heated red oxide of mercury by means of a burning glass, and got oxygen, which he called phlogisticated air for it supported both combustion and respiration.

THE INTERSTATE POST GRADUATE CLINIC TOUR ABROAD

The second foreign tour of American physicians is announced to start on April 28th from New York City on the "Araguaya" of the Royal Mail Steam Packet Line. The tour is under the auspices of the Inter-State Post Graduate Assembly of North America, which is a development of the Tri-State Medical Society.

This organization has its headquarters in Freeport, Illinois. It has conducted a series of pilgrimages to medical centers in the United States, and last year it conducted a tour to the medical centers of the British Isles and Paris. The foreign tour was a success and was taken by five hundred doctors and two hundred and fifty members of their families. Medical lectures were held on the boat every day of the ocean trip, and the members were cordially received by the hospital authorities and the officials of the cities that were visited. Science, sociability, and sight-seeing were happily combined during the whole six weeks of the trip. The spirit of the members is indicated by Dr. Tasker Howard in the *Long Island Medical Journal*, January, 1926, who said of the tourists: "Sixty-five per cent were general practitioners, men of wide experience, shrewd judgment, and ambition. The other thirty-five per cent were surgeons or specialists of one kind or another. The average level of medical accomplishment was very high, in spite of the scarcity of nationally known figures (The eminent advisory board contributed prestige by the luster of their names and mostly stayed at home). The atmosphere of the party exempli-

fied the American spirit at its best, a medical democracy, each member ready to give and take, none presuming superiority. There was evident a serious purpose, but laughter never was very far below the surface."

This year's trip is planned along the lines of that of last year. The party will land at Cherbourg, and will visit Paris, Rome, Florence, Pisa, Bologna, Padua, Milan, Berne, Zurich, Munich, Vienna, Prague, Berlin, Amsterdam, The Hague, Utrecht, Leyton, and Brussels. Dr. Carl Beck, of Chicago, General Secretary of the Organization, is now abroad completing the arrangements for the trip.

General information regarding the trip is contained in a twenty-four page folder which has been extensively distributed. It contains the portraits of eighteen prominent physicians and surgeons who are either officers of the organization or sponsors for the trip, and an eight-page list of notable medical men who are sponsors for the tour—132 Americans, and 217 foreign physicians. The cost of the tour is about \$1,500 for first-class accommodations, but arrangements may be made for a part of the trip.

A second section of the tour is announced to leave New York on June 19, and returning to leave Europe on August 19 from Antwerp.

The popularity and success of last year's tour will doubtless influence the medical men of America to over-subscribe to the quota which can be accommodated on this year's tour.

LOOKING BACKWARD

The *New York State Journal of Medicine* for February, 1901, contains an eulogy of Dr. Leroy J. Brooks, who died on December 11, 1900, at his home in Norwich, where he had practiced medicine for twenty-six years.

Dr. Brooks was noted for his public spirit and his conscientious performance of every duty. He was faithful to his patients and to his brother practitioners and their societies. His fine character is revealed in a short poem which he wrote only two weeks before his death, of which two verses read:

"Help me to know just what is best,
What hidden purpose thou didst have for me,
Let me, O Lord, e'en in this enforced rest,
Find something yet that I can do for Thee,
"Help me by faith to bravely walk
The path unlighted which I cannot see
Hold fast my hand and to me talk
Till I unquestioning put all trust in Thee."

Dr. Brooks was the father of the present Deputy State Commissioner of Health.

ment of bacteriology, biological chemistry, electro-therapy, and other sciences, expensive laboratories had to be maintained, and the cost of the one item of guinea pigs of a modern laboratory exceeds that of the dissecting material of pre-bacteriological days. The medical schools today report an annual cost of maintenance approaching twelve hundred dollars per student, which is offset by a tuition fee of about three hundred dollars. Every medical student in the land is the recipient of a gift whose money cost exceeds that of the donation to a theological student. The medical profession probably heads the list of the learned professions in the amount of public money, or endowment which is allocated to each student as an overhead charge upon the institution.

The medical schools of the Northern States are the recipients of millions of dollars of endowments from the wealth that surrounds them, but the schools in the Southern States are also receiving great endowments. Duke's University is planning a medical school in North Carolina that shall equal that provided by Mr. Eastman of Rochester. The Vanderbilt University Medical School of

Tennessee has secured an endowment which is worthy of the excellent medical work done by the school in the past. And now Emory University in Atlanta is appealing for an endowment of ten million dollars, nearly one-half of which will be for the benefit of the Medical Department.

The Medical School of Emory University is adopting the unusual plan of making an appeal through the State Medical Association of Georgia. A letter of appeal from Dr. Allen H. Bunce, Secretary of the State Association and Editor of its Journal, states:

"For many years the school has been handicapped both in research and in teaching work because of inadequate endowment. The enrollment in each class has been limited to sixty men at a time when more physicians of Georgia alone are dying each year than the two medical colleges of the State are graduating. The school is looking to its alumni and to other friends of medical education to give funds so urgently needed for expansion."

It is gratifying to note the cordial relations of the Medical Department of Emory University with the official medical society of its State.

PHYSICIANS IN RURAL COMMUNITIES

A survey of rural communities made soon after the war indicated that in many places as the older physicians died or retired, no other doctors took their places. The statistics were interpreted to indicate that in a decade or two the people of rural communities would be unable to obtain medical service.

A conference on the subject of rural medical service was held in the spring of 1923 under the joint auspices of the State Department of Health of the State Medical Society, and the consensus of opinion was that the advent of automobiles and good roads enabled a doctor to make his visits over a radius of ten miles as readily as over one of three miles a decade ago. It was further shown that the critical period of medical need was during and immediately after a heavy snow storm when the roads would be impassable and visits over a mile away would be almost impossible under any conditions of supply of doctors.

While there was no general need for additional doctors in rural communities, a few isolated places needed doctors. A few places in the Adirondack Mountains were seeking doctors and the towns were offering considerable salaries as inducements to doctors who would settle there. But difficulty in securing doctors arose from the fact that physicians from the city flocked to the mountains during the summer season and took

the cream of medical practice, and left the local doctor to do the hard unremunerative work during the season of blizzards. It is not the blizzards and the long drives that keep doctors out of the rural communities, but it is the competition of city doctors who seek to meet the expenses of their vacations by taking cases that properly belong to their rural confreres.

The rural people, too, are somewhat to blame when they employ the city man because he is nearby, or appears to be more available than the local doctor.

Now and then a call for a doctor comes from a rural community in which there is an excellent organization of physicians. Such calls for assistance have come from Chautauqua and Steuben Counties.

The State Department of Health has adapted the policy that when it receives a request for a doctor, they shall refer the request to the State Medical Society. During the two years that the policy has been in force the bona fide calls for assistance have been few. However, the Medical Society of the State of New York is ready to assist any community to secure a doctor. It prefers that the call for assistance should come through a county medical society or a group of physicians who are familiar with local conditions.

regular rhythm was established in 70 per cent, while in the degenerative group only 40 per cent became regular. The average amount of drug necessary to bring about sinus rhythm in the mitral group was 1.142 Gm, while in the degenerative group it was 1.450 Gm. The average duration of regular rhythm in the mitral group was 90 days, while in the degenerative group it was 20 days. The average duration of the auricular fibrillation in those who became regular after quinidine had been five months, while in those who did not respond the average duration had been 19 months.

To those patients who could be kept under observation after the establishment of regular rhythm, quinidine was usually given in daily doses of from 0.2 to 0.6 Gm for a few weeks in order to prevent an early relapse.

In *transient* auricular fibrillation, quinidine was found to be indicated only when the arrhythmia persisted after the disappearance of the transient causative factor. In cases associated with hyperthyroidism, quinidine apparently should not be used until six weeks after thyroidectomy. In *paroxysmal* auricular fibrillation not due to hyperthyroidism, in which paroxysms were frequent, quinidine administered prophylactically, in doses of from 0.2 to 0.4 or 0.8 Gm daily, was found to be of the greatest value in lengthening the interval between the attacks and in shortening the paroxysms that did occur. In the treatment of individual paroxysms, quinidine was called for only in rare instances when the paroxysm tended to be prolonged. Quinidine in daily doses was not necessary unless the paroxysms occurred more often than once in two weeks. In the mitral disease group quinidine should be used only in the absence of cardiac hypertrophy and dilatation, when the irregularity has existed for but a short time and there is no congestive cardiac failure. In the degenerative group, the authors are inclined to believe that the use of quinidine is not justified. The chief value of the drug was found in the treatment of frequent paroxysmal auricular fibrillation when not associated with hyperthyroidism. It has many dangers and an extremely limited field of usefulness in the established cases, and real benefit of considerable duration is derived in only a small proportion of these. One death occurred in association with quinidine therapy in the series of cases of the established type.

Angina Pectoris Without Anatomical Basis
—A case of this type was reported recently by Gruber and Lanz. The patient had died in the midst of an "epileptic" seizure and the absence of all lesions at autopsy gave rise to the opinion that a fatal spasm of the coronary arteries had accompanied a similar process in the encephalon which produced the fit. The myocardium appeared to be in a condition of ischemia although

the vessels were quite intact. This same case is commented upon in greater detail by Kohn in the *Muenchener medizinische Wochenschrift* of December 11, 1925. There was no remote history worth mentioning, the evidence in favor of an epileptic seizure was defective, although the patient appeared to have had several similar seizures shortly before admission to the clinic, and there was a doubtful history of an anginous attack also shortly before admission. The microscope showed changes in the heart which could hardly have occurred more than four days before death—an ischemic necrosis—while the first epileptic seizure was said to have occurred some nine weeks before admission. The vascular spasm in the coronary arteries, to have produced ischemic necrosis, must have been both prolonged and intense. The author dismisses the idea that the patient was an epileptic, for the seizures were atypical at best. The patient's pulse presented nothing abnormal during his short sojourn in the hospital, else one might think of an epileptiform attack resulting from heart-block. The author is inclined to believe that the case was nothing more or less than a sustained spasm of the coronaries lasting some six minutes and producing death by total arrest of the heart's action. The supposed seizure would then be only a terminal convulsion, having nothing in common with epilepsy. The importance of the case lies chiefly in its testimony that not only may angina pectoris be due solely to spasm of the coronaries but that such a functional spasm may in itself be fatal.

Operative Treatment of Angina Pectoris — Goldscheider contributes an article well calculated to give the exact status of this subject. He first isolates three distinct types of intervention: (1) Sympathectomy in the original Jonnesco sense in which the cervical and first thoracic ganglia are extirpated. (2) Extirpation of the superior cervical ganglion only, on the supposition that the reflex arc is thereby interrupted by division of the cardiac vasoconstrictor fibres (Coffey and Brown operation). (3) Division of the depressor vagi on one or both sides (Eppinger and Hofer operation). The theoretical justification of surgical intervention is that thereby the pain-registering fibres are divided. We know little enough about pain in the heart and aorta, although there are sensory fibres in the adventitia of the latter. The wisdom of abolishing pain is sometimes dubious for we may be changing an active to a latent and insidious process. In dividing these fibres we may also interfere with the blood supply of the myocardium. The author gives five different explanations of the painful crises and of their relationship with organic disease of the heart. He does not endorse the scepticism of Wenckebach in regard to coronary spasm as the cause of the pain, and enumerates many reasons for his



MEDICAL PROGRESS



An Initial Syndrome of Gangrenous Appendicitis—R M Rowe (*Lancet*, Dec 19, 1925, civ, 5338) calls attention to the value of what he terms the "epigastric syndrome" in enabling one to recognize, at the beginning of the illness, a form of appendicitis which calls for early operation to anticipate the certain onset of gangrene and perforation. This group of signs is to be met with quite at the beginning of the gangrenous form of appendicitis. It is well marked during the first six hours and well in advance of the classical signs in the right iliac region. The patient must be seen within the first six hours or so after the onset of the symptoms, because after that the syndrome in question tends to disappear, and when the surgeon and physician meet in consultation may have vanished with hardly a trace. It will not be met with in hospital practice, for patients seen there do not come to the surgeon early enough. The patient—a child or young adult most commonly—complains of violent pain referred to the epigastrium. There is usually vomiting, but the knees are not drawn up. An abdominal examination shows marked tenderness, localized in the left upper epigastric region, with cutaneous hyperesthesia within the same limits. The upper segment of the left rectus muscle is in a state of contraction and feels rigid on palpation. The right iliac region, on the contrary, betrays neither swelling, rigidity, tenderness, nor hyperesthesia, at this stage of the process. The temperature is often slightly raised—99° to 100° F—and may become normal again as the syndrome passes. The pulse is a more reliable guide—90 to 120—and either does not decline with the fall of temperature or becomes progressively faster and shows increasing tension. The duration of the syndrome varies, it is most apparent during the first six hours of the attack, but it may still be recognizable in part so long as 18 or 19 hours after the beginning of the epigastric pain. The last element to disappear is the tonic of the left rectus. The practical point is that the syndrome is transient, and this being so, it is important to recognize it at the beginning of an attack, since it is a definite warning of the gravity of the process and an indication for immediate operation.

In a former article in *La Presse Medicale* of May 5, 1923, the author says that laparotomy at this stage would show the great omentum approaching the appendix, the interval varying with the progress of the disease, eventually, it will reach the appendix and be closely approximated to it. The appendix itself will be the seat of a patch of gangrene through which perforation

may occur. The author is unable to account for the syndrome, but evidently it stands in some close association with the irritated condition of the great omentum, or if not this, the mechanism must be a reflex involving the solar plexus and vagus.

The Dietetic Treatment of Ulcer of the Stomach—After discussing the dietetics of ulcer of the stomach as practised by the Leube and Lenhartz methods, Alexander J. Jarotzky (*Therapeutic Gazette*, December 15, 1925, 3rd Ser., vi, 12) outlines a procedure which has given highly satisfactory results in his hands. A patient suffering from ulcer of the stomach, even immediately following acute hemorrhage, is given one raw white of egg (without salt) on the morning of the day following admission, and 20 grams of good, fresh-cream butter (without salt) in the evening. On each of the following days the number of the whites of egg is augmented by one, and the amount of butter by 20 grams, until the number of whites of egg amounts to eight and the quantity of butter to 160 grams. The diet can be continued for ten to twelve days. The patient is allowed no other food, drink or medicaments. This diet is recommended as giving the most perfect rest to the stomach in ulcer of the stomach and duodenum, in poisoning by corrosive acids and alkalis, when one may fear peritonitis from perforation of the ulcer, in the treatment of illness accompanied by excessive secretory function of the stomach (hyperchlorhydria), gastrosuccorhea and the like, following operations on the stomach and in any condition in which complete rest for the stomach is indicated.

Quinidine in the Treatment of Auricular Fibrillation—F. Janney Smith and Norman E. Clarke report their experience with the administration of quinidine in cases of certain types—paroxysmal, transient and established—of auricular fibrillation (*Archives of Internal Medicine*, December 15, 1925, xxxvi, 6). In the group of cases (20) of established auricular fibrillation, normal rhythm was produced in 61 per cent by a one-day plan of quinidine administration. All the patients had previously received sufficient digitalis to slow the ventricular rate below 90 per minute, the drug being then discontinued. A test dose of 0.2 to 0.4 Gm. was given the first day, and during the day following 2.4 Gm. or less was administered in increments of 0.4 Gm. The cases were equally divided between the arteriosclerotic, the senile or degenerative type, and those in which mitral disease was the main contributing factor. In the mitral disease group,

regular rhythm was established in 70 per cent, while in the degenerative group only 40 per cent became regular. The average amount of drug necessary to bring about sinus rhythm in the mitral group was 1.142 Gm., while in the degenerative group it was 1.450 Gm. The average duration of regular rhythm in the mitral group was 90 days, while in the degenerative group it was 20 days. The average duration of the auricular fibrillation in those who became regular after quinidine had been five months, while in those who did not respond the average duration had been 19 months.

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belief that this spasm is the essence of the disease. Allbutt's justification that the pain originates from spasm of the aorta he has never seen in the original and hence withholds his criticism. However whether coronaries or aorta be at fault does not immediately concern the policy of surgical intervention. The problem of correct diagnosis of angina is of much greater significance, and he mentions numerous affections which have been confounded with it. Finally comes the diagnosis of when and how to intervene, which is being abundantly discussed by the surgeons. The paper closes with a report of two fatal unpublished operative cases (Sorenson, Brüning). —*Klinische Wochenschrift*, December 17

Cardiorrhaphy—J. H. Long (*Boston Medical and Surgical Journal*, December 24, 1925, cxiii, 26) describes two cases of stab wounds of the heart in which suture of the wound was followed by complete recovery. In the first case, on exposure of the heart, the tip of the auricular appendix and upper margin of the pericardial opening were withdrawn from a hole about one-half inch long in the anterolateral wall of the left auricle. A continuous chromic suture was passed through the pleuro-pericardial membrane, myocardium and endocardium, and the chest wound was hurriedly closed. There were no ill-effects from this method of suture, and it added much to the firmness of closure. The sutures were introduced during diastole, this being regarded as the most convenient time during the cardiac cycle. In the second case, there was an incision one inch long in the pericardium and a wound in the ventricle which admitted the tip of a finger. This was closed with one chromic suture. The pericardial and pleural sacs should be closed without drainage. Free communication between these cavities is compatible with good health in animals, and it has been suggested that if such communication were left in cases operated upon, the mortality might be reduced. This was done in the author's second case. Cardiorrhaphy has raised the percentage of recovery in cases of heart wounds from 10 to 40.

Cholin in Paroxysmal Tachycardia—Stepp and Schliephake report the case of a young man with frequent attacks of paroxysmal tachycardia due to auricular flutter, with a maximum pulse rate of 240 per minute. Cholin injection brought it down in five minutes to 80, the patient at the same time complaining of a sense of constriction in the chest and salivation. Since suggestion has been known to interrupt these attacks the authors used other drugs by injection but always with a negative result. During a period of eight months 60 cholin injections were given. No practical conclusions can be drawn from one case and the authors make no suggestions about the use of cholin in the clinic, save that it should be a valu-

able synergist to strophanthin. It is suggested that the remedy may be given intravenously in the dose of 0.5 c.c. of a 5 per cent solution of cholin chlorate.—*Muenchener medizinische Wochenschrift*, November 20, 1925

Diagnosis of Syphilis From the Blood Picture.—Anton of Hamburg states that for several years he has been at work on this problem, but until recently with chiefly negative results. The dark field illumination, vital staining and other resources led only to failure. However, he had the firm conviction that the blood contamination with the spirochete at the first explosion of the disease should leave its mark in some way and thereby give us a more rational and trustworthy test than the Wassermann reaction, which is neither truly specific nor always dependable, since a negative seroreaction may not exclude the disease. Recently, the discovery of a new stain gave the author his first success in that it causes a characteristic change in the nuclei of the leucocytes which appears to be of the nature of a chromatolysis. He withholds for the time being the exact technique of staining, but in essence he fixes thin blood smears with methyl alcohol and stains with a formula of methylene blue. Thus far, he has examined the blood of about 200 syphilitics with every clinical type of the disease, save the first of the primary sore period, and has not found the blood picture absent even in metasypilis and congenital lues, nor has he ever found it in other than syphilitic subjects. Thus far, he is unable to advance any views as to the mechanism of this alteration in the leucocytes nor is it possible to tell from it anything concerning the stage or degree of severity of the disease. It is well known that in the different stages and intensities there are various alterations in the blood picture, but thus far nothing specific of syphilis had been shown to be present until the author made his staining discovery.—*Archiv f. Dermatol u. Syphilis*, Nov 20, 1926 (cxlix, No 3)

The Teeth in Congenital Syphilis—The original teaching of Hutchinson regarding the dental anomalies in congenital syphilis has been so modified by numerous modern reports as to leave it hardly recognizable. The general trend of the present-day teaching is that there are numerous dystrophies of the teeth, by no means specific in character, which are in the main due to hypoplasia of the enamel, coming under the head of erosions. But Pflüger, of the Dental Department of the Hamburg-Eppendorf Hospital, after years of original investigation, goes back to the Hutchinsonian views which he endorses in every respect. In other words, the notching of the upper central incisors he regards as an eminently specific lesion found only in congenital syphilis, the deformity being due to some vice of development

limited to the middle third of the maxillary denture. One naturally asks how the Hutchinson doctrine became sidetracked, and this question is not difficult to answer. After the British author had published his classic, some of his enthusiastic French colleagues, among them Parrott and Fournier, took up the subject where Hutchinson had stopped and began to add to the clinical manifestations until much confusion was produced. During the present century, a whole body of statement has been supplied by stomatologists and syphilographers, in which the prevailing note has been that alleged dental anomalies attributed to syphilis in reality occur in a variety of conditions, while congenital syphilitics may not present dental anomalies of any kind. The present state of our knowledge is as follows. In congenital syphilis the upper middle incisors present characteristic pictures, such as the notched edge and the "chisel" and "screw-driver" shapes. The changes, however, are by no means limited to these teeth. The many lesions added by other authors are not specific and are due to hypoplasia of the enamel, so that they occur under various circumstances and may coexist with "Hutchinson's teeth," although merely by coincidence. Symmetry is not necessarily present.—*Archiv f. Dermatologie u. Syphilis*, Nov 20, 1925 (cxlix, 3).

Studies of Certain Hitherto Undescribed Antirachitic Substances.—In former communications Andor de Bosanyi (*Bulletin of the Johns Hopkins Hospital*, January, 1926, xxxviii, 1) showed that watery extracts of defatted bone-marrow caused healing when they were administered to rickety animals. Since the bone-marrow from which these substances were made was defatted, and the extracts themselves were subjected to dialysis, the organic matter must have consisted in a large part of protein. Among these proteins hemoglobin, histons, nucleoproteins, fibrogen, and globulins are the most notable, there are also some xanthin bases, cholesterolin, inositol, lactic and uric acids, and certain pressor substances. Experiments were carried out to determine to which of these substances the specific antirachitic effects were due. Rats were made rachitic by standard rickets-producing diets and then treated with these substances, given separately. It was found that healing might be induced by a histon—the globin of hemoglobin, a diamido acid, cystin, an aromatic compound, adrenalin, and an alkaloid, pilocarpine.

Therapeutic Softening of Scar Tissue.—In an article in the *Muenchener medizinische Wochenschrift*, of December 11, 1925, Professor Stoeltzner of Koenigsberg says that in 1911 he saw a remarkable result from fibrolysin in which a post-pneumonic retraction, with scoliosis, underwent complete resolution. Since that time,

however, due no doubt to employment of the remedy in unsuitable cases, surgeons have become more or less sceptical about the virtues of thiosinamin, but the author has never lost interest in the idea and has sought particularly to find an improvement on the original formula of fibrolysin, which, as is known, is an 87 per cent solution of thiosinamin. On account of its increased solubility in aqueous solutions of urea (25 per cent) he was able to increase the strength to more than 10 per cent. At first the author contented himself with experiments *in vitro* in dissolving in the new solution connective tissue and fibrils of scar tissue, also collagen and gelatin. Of importance are experiments in lowering the solidification threshold of gelatin solutions and in this connection it was possible to add various salts to the author's solution as synergists. Many salts known to lower this point were tested and the composition of the solvent was also varied, using mixtures of alcohol and water. As is known fibrolysin contains sodium salicylate. The author found that the best solvents were urea (present of course in thiosinamin as well), cholin, potassium, and sulphocyanides. His best formula seems to have been a saturated solution (50 per cent) of urea as a solvent and in addition to the 10.1 per cent of thiosinamin, 1.5 per cent of potassium sulphocyanide. Dura mater was used as a test-substance.

The practical results of this treatment of scars is given in a complementary article by Stoye, Professor Stoeltzner's assistant in the chair of Pediatrics in Koenigsberg. The material for these therapeutic tests was found chiefly in the surgical clinic of Professor Voelcker of Halle. A case given in detail was one of extensive scar formation following burns of the face and breast in a child of six years, who was seen by the author at the age of fifteen. It had been necessary to divide the scar tissue to enable the child to move her head and arm, but there was still very great deformity and limitation of motion. In beginning the treatment various solutions were used for mutual control, injected directly beneath the scar. The solution mentioned in Stoeltzner's article and another containing iodide in place of sulphocyanide of potassium gave the best results. Treatment was begun March 21, 1925, and continued to March 31, injections were made daily in several places and active and passive motion, also practised daily, showed the rapidity with which the scar tissue yielded. The patient has been under observation since and the improvement is seen to be permanent. The author has treated many other cases of scarring and concludes that, while brilliant results are seen in suitable cases, he cannot recommend the treatment for adherent scars because of the tendency to necrosis. One should also wait until the cicatrizing process has reached its completion.



LEGAL



CLAIMED DIAGNOSIS OF GALL STONES INSTEAD OF APPENDICITIS

In this action the defendant physician was sued to recover for the damages claimed to have been suffered by the plaintiff as administrator of his decedent. It was charged that the defendant negligently and carelessly diagnosed the ailment of the decedent as gall stones, when in fact she was suffering from appendicitis, and that by reason of his improper diagnosis there was a delay in the performance of the appendectomy resulting in the setting in of peritonitis and the subsequent death therefrom of the decedent.

The defendant physician had attended and treated the decedent at various times for different ailments. On May 25th, at about 2 P M., he was called to the patient's home, at which time he found her in bed and complaining of pains in the stomach, and she stated that she felt like vomiting. Upon an examination of the abdomen no objective symptoms of appendicitis were found except a slight tenderness and slight rigidity of the muscles of the abdomen. Her temperature and pulse were normal at this time. The physician ordered the application of a hot water bottle and the administration of a hot water injection. He returned in about two hours, at which time she was still complaining of the abdominal pain. The patient inquired of the physician whether he thought she was suffering from gall stones. The abdominal examination made at this time disclosed the same condition as on the previous examination. He advised that the patient be removed to the hospital, but she refused to go at that time, stating that she would have to await the return of her husband in the evening. The physician had arranged to return to the patient's home at about 8 o'clock that evening. Shortly before this hour he received a telephone call from the patient's husband stating that the patient was better and that the doctor need not call unless he was sent for.

At about 2 A M. of the following morning the husband again telephoned to the physician's office stating that the patient again had the pains. The physician at that time advised the application of an ice bag. At about 5 A M. of the same morning the physician received another telephone call and immediately went to the home of the patient whom he found in bed and complaining of intense pain in the abdomen. He directed that she immediately be sent to the hospital and in ambulance was called. She was removed to the hospital at about 6 A M. At about 8 A M. a urine and blood examination were made by the pathologist at the hospital, the blood examination disclosing the presence of a large quantity of white

cells. The patient was immediately prepared for operation, and an appendectomy was performed by the defendant under a general anaesthesia. Upon opening the abdomen the appendix was found to be gangrenous, and was removed and a rubber drainage tube inserted. The abdominal wound was then sewed and the patient returned to bed and placed in shock position by raising the head of the bed. The defendant physician remained with the patient until she came out of the ether about two hours later. He placed her in charge of two graduate nurses, and called upon her three times thereafter during that day. After the operation the patient's temperature rose to about 103 degrees. The doctor called upon her three or four times the following day and there was a slight improvement in her condition with a small decrease in temperature. Her condition continued to improve until May 29th, when the temperature suddenly rose to about 104 degrees, and the patient became cold and restless. The defendant physician had hot water bottles applied to her feet, and ordered that she be well covered up. From this time on her condition did not improve, and her pulse became weak. Stimulation was administered to her, the defendant staying with the patient and constantly watching her. The temperature decreased one degree and then suddenly rose again to 105.8 degrees at the time of the death of the patient at about 10 A M. on May 30th. A death certificate was issued by the house physician of the hospital, giving the cause of death as general peritonitis with the contributory cause of gangrenous appendicitis.

At the time of the trial the plaintiff introduced various lay members of the family to testify that when the defendant was first called he diagnosed the condition of the decedent as gall stones, and that in answer to an inquiry as to whether the patient was suffering from appendicitis he had answered in the negative, and that at the second visit made by the defendant he still insisted that the ailment of the decedent was gall stones and not appendicitis, and that there was no necessity for the patient being operated upon or removed to the hospital, and it was not until the visit at 5 A M. on the morning of May 26th that he made his diagnosis of appendicitis. The lay witnesses likewise testified to the symptoms and complaints of the patient. Upon this testimony the plaintiff introduced a physician as a witness, who testified as an expert, that from all of the symptoms the patient was suffering from appendicitis and not from gall stones, and that the defendant should have diagnosed the condition as such, likewise

that the application of heat to the abdomen and his failure to visit the patient as testified by the plaintiff's witnesses, was a competent producing cause to extend or increase the peritonitis and result in the death of the patient. It was likewise the opinion of this physician that the gangrenous condition of the appendix had set in between 10 A M and 2 P M of May 25th, which was the time when the defendant was first called to attend the decedent. The defendant in his own behalf testified as to various calls upon the patient and the examinations made at those times, and

his tentative diagnosis of appendicitis and a subsequent diagnosis of appendicitis, which was borne out by the operation. He likewise introduced the testimony of the physicians who had assisted him in the performance of the operation, and that of physicians who testified as experts that the procedure of the defendant was in accordance with the proper and approved practice.

At the close of all the evidence the case was submitted to the jury which, after several hours of deliberation, returned a verdict in favor of the defendant.

PREGNANCY—PYELITIS SUBSEQUENT TO DELIVERY AND RESULTANT HYSTERECTOMY

In an action instituted against two physicians in August, 1922, it was charged that they were engaged in September, 1919, to deliver the plaintiff of a child, that they failed to give usual and ordinary careful treatment, with the result that the plaintiff's body and blood became infected, causing the removal of the plaintiff's generative organs.

One of the defendants was engaged for the confinement a few months ahead of the expected period and about the middle of September, 1919, he delivered the plaintiff. The delivery was regular, with a normal labor in every respect, no lacerations, and a normal vertex birth. Her condition remained normal until the afternoon of the third day after the birth, when the defendant was called to the hospital and informed that the patient had had a chill and was running a temperature of 102 and 103 degrees. The chills and temperature persisted and two days thereafter when he made the vaginal examination he found nothing wrong, no pain, no masses or evidence of inflammation in the pelvic organs. On the 9th day after the birth the defendant called another physician in consultation, who likewise made a complete physical examination and found nothing wrong in the pelvis of the patient. He found no evidence of any inflammation, the fallopian tubes were normal and the uterus had continued normally to involute. The plaintiff continued running a temperature with no apparent cause therefor.

The patient was catheterized and the urine analysis disclosed that she was suffering from pyelitis and she was thereupon given the proper treatment for this condition. The patient was removed to her home, where her child was also ill with pyelitis. The defendant there continued to treat both the mother and the child, taking frequent urine specimens which, upon analysis,

showed the presence of pus. The mother developed a pain in the abdomen and the second defendant was called in consultation. He made a physical, bi-manual and vaginal examination and was of the opinion that the plaintiff was beginning to develop localized trouble in one side of her pelvis. He recommended the continuation of the present treatment and that it would be safer to let the condition localize before operative methods were resorted to. A special vaccine was prepared and administered to the plaintiff. She was also treated with ice bags and hot water douches. As her condition did not improve in about three days, she was removed to the hospital with which the second defendant was connected, where the treatment was continued for about a week, when the second defendant was arbitrarily dismissed from further treatment of the plaintiff.

A surgeon was called in consultation who advised an immediate operation, in which advice the second physician did not concur. This surgeon was again called in consultation and sent his assistant, who likewise advised immediate operation. The second defendant not concurring in the advice, the patient was removed to the hospital of the surgeon and there operated upon for the drainage of pus. Her condition became progressively worse and it was necessary to perform a hysterectomy upon the plaintiff. She subsequently recovered and thereafter the patient and her husband instituted actions of alleged malpractice against both of the defendants.

The actions not having been commenced within two years after the cause of action had arisen, upon motion made in behalf of the defendants the complaints were dismissed on the ground that the actions were barred by the Statute of Limitations, terminating these actions in favor of the defendants.

Medical Society of the State of New York

120TH ANNUAL MEETING

March 29-April 1, 1926

House of Delegates, Monday afternoon and evening, and Tuesday morning Section meetings, Tuesday afternoon and Wednesday morning and afternoon Demonstration on Syphilis all day Thursday Annual Dinner, Tuesday Evening General Meeting, Wednesday evening

HOUSE OF DELEGATES

The regular annual meeting of the House of Delegates of the Medical Society of the State of New York will be held on Monday Afternoon, March 29, 1926, in the Ballroom of the Waldorf Astoria, New York City

NATHAN B VAN ETEN, M D *President* E ELIOT HARRIS, M D, *Speaker*
DANIEL S DOUGHERTY, M D, *Secretary*

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PROGRAM

Calling the Society to order by the President, Nathan B Van Eten, M D
Address of Welcome by the Chairman of the Committee on Arrangements, Edward R. Cuniffe, M D
Reading of the minutes of the 119th Annual Meeting by the Secretary, Daniel S Dougherty, M D
President's Address, Nathan B Van Eten, M D

ANNUAL BANQUET

The Annual Banquet will be held in the Waldorf Astoria, Tuesday evening, March 30th.

SPECIAL SYPHILIS DEMONSTRATION

The committee on scientific work of the Medical Society of the State of New York has arranged a special day, Thursday, April 1, for a demonstration of Syphilis in all its varied phases
For program, see page 167

SECTION PROGRAMS

SECTION ON MEDICINE

Chairman, L Whittington Gorham, M D, Albany
Secretary, Wardner D Ayer, M D, Syracuse
Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

"Liver Function Studies," Charles S McVicar, M D, Rochester, Minn (by invitation)
Discussion

"Neuron Block for the Relief of Pain With a Report as to Its Use in Angina Pectoris," George I Swetlow, M D, Brooklyn

Discussion opened by John Wyckoff, M D, New York City

"Basic Factors in Human Hypersensitiveness," Robert A Cooke, M D, and Will C Spain, M D, New York City

Discussion opened by Aaron Brown, M D, New York City

"The Recognition of Chronic Nephritis in its Early Stages, and Consideration of Some Neglected Principles in Functional Diagnosis," Nellis B Foster, M D, New York City

Discussion opened by John A Lichty, M D, Clifton Springs

"The Clinical Result after the Long Continued Use of Insulin," John Ralston Williams, M D, Rochester

Discussion opened by Nelson G Russell, M D, Buffalo

Wednesday, March 31st, 9 30 A.M

Joint Session with Section on Surgery

"More Recent Studies Upon the Etiology of Post-Operative Pneumonitis," Allen O Whipple, M D, New York City

Discussion

"The Experimental Production of Lung Abscess," Elliott Cutler, M D, Simon A Schlueter, M D, I F Weidlein, M D, Cleveland, Ohio (by invitation)

Discussion opened by James M Hitzrot, M D, New York City

"Pulmonary Abscess and Its Treatment," (a) from the Surgical Standpoint, Adrian V S Lambert, M D, New York City, (b) from the Medical Standpoint, James A Miller, M D, New York City

Discussion opened by Howard Lilienthal, M D, and John D Kernan, M D, New York City

"Broncho-pulmonary Spirochetosis," David T Smith, M D, Ray Brook

Discussion opened by Edward R Baldwin, M D Saranac Lake

Wednesday, March 31st, 2 30 P M

Joint Session with Sections on Pediatrics and Neurology and Psychiatry

"The Vegetative Nervous System and Encephalitis with Special Reference to Personality Changes in the Young," Foster Kennedy, M D, New York City

Discussion opened by E D Friedman, M D, New York City

"The Relation of Vitamins to Disease," E V McCollum, M D, Baltimore, Md (by invitation)

"The Vitamin Value of Some Common Food-stuffs," Walter H Eddy, Ph D, New York City (by invitation)

Discussion

"A Survey of Our Present Knowledge of Tetanus and Its Treatment," Matthias Nicoll, M D, Albany

Discussion opened by John J Moorhead, M D, New York City

SECTION ON SURGERY

Chairman, Edward S Van Duyn, M D, Syracuse

Secretary, George E Beilby, M D, Albany

Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

Joint Session with Section on Neurology and Psychiatry

"The Principles and Methods of Treatment of Fracture Dislocation of the Neck," Alfred S Taylor, M D, New York City

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"Ventriculometry (with Lantern slide demonstration)," K. Winfield Ney, M D, New York City

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Discussion opened by Edward R Baldwin, M D Saranac Lake

Wednesday, March 31st, 2 30 P M

"Further Advancement in the Technique and Interpretation of Cholecystography by the Oral Method," William H Stewart, M D, New York City

Discussion opened by Lester Levyn, M D, and A H Aaron, M D, Buffalo

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Wednesday, March 31st, 9 30 A.M

'A Plea for More Rational Management of the Undernourished,' Frank vander Bogert, M D, Schenectady

Discussion opened by Charles Gilmour Kerley, M D, Charles Hendee Smith, M D, Louis Clausen Schroeder, M D, Dever S Byard, M D, New York

'Recent Studies of Gonococcus Vaginitis of Infants,' Edward F Wynkoop, M D, Edgar O Boggs M D, (by invitation), Syracuse

Discussion opened by Walter Lester Carr, M D, Philip Van Ingen, M D, New York.

'Intra-peritoneal Transfusions of Blood in the Treatment of von Jaksch Anemia,' Clifford G Grulee, M D, Chicago (by invitation)

Discussion opened by Oscar M Schloss, M D, Marshall Carleton Pease, M D, New York

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Discussion opened by Howard Harris Mason, M D, Royal Storrs Haynes, M D, New York

"The Role of Carbo-hydrates in the Feeding of Infants," Linnaeus E LaFetra, M D, New York

Discussion opened by Bela Schick, M D (by invitation), Sidney Valentine Haas, M D, Adolph George DeSanctis, M D, New York

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Joint Session with Sections on Medicine and Neurology and Psychiatry

The Vegetative Nervous System and Encephalitis with Special Reference to Personality Changes in the Young," Foster Kennedy, M D, New York City

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Discussion opened by John J Moorhead, M D, New York

SECTION ON NEUROLOGY AND PSYCHIATRY

Chairman, Clarence O Cheney, M D, Utica

Secretary, Thomas K. Davis, M D, New York City

Place of Meeting, Waldorf-Astoria

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Joint Session with Section on Public Health

"The Child as an Individual," Marion E Kenworthy, M D, New York City

"Mental Hygiene of the School Child," William A Howe, M D, Albany

"The Organization of Mental Hygiene Clinics in the Schools of Schenectady," John E Burke, M D, Schenectady

"Method of Preventing Delinquency," Ralph P Truitt, M D, New York City

Discussion opened by Frankwood E Williams, M D, New York City

Wednesday, March 31st, 2.30 P M

Joint Session with Sections on Medicine and Pediatrics

"The Vegetative Nervous System and Encephalitis with Special Reference to Personality Changes in the Young," Foster Kennedy, M D, New York City

"Muscle and Nerve Injuries Associated with Fractures," Dean Lewis, M D, Baltimore, Md (by invitation)

Discussion opened by William Darrach, M D, New York City

"Appendicitis in Early Life," Edward W Peterson, M D, New York City

Discussion opened by Richard W Bolling, M D, New York City

"The Clinical Features of Chronic Pancreatitis," J William Hinton, M D, New York City

Discussion opened by Charles G Heyd, M D, and Paul Klemperer, M D, New York City (by invitation)

"Stricture of the Ureter, Its Etiology, Sequelae and Treatment," Cyril K Church, M D, New York City

Discussion opened by Oswald C Lowsley, M D, New York City

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman, Alfred C Beck, M D, Brooklyn

Secretary, Nathan P Sears, M D, Syracuse

Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

"The Management of Vomiting of Pregnancy," James K Quigley, M D, Rochester

"The Treatment of Eclampsia," Frederick W Rice, M D, New York City

"Prenatal Care," Asa B Davis, M D, New York City

"Fetal and Neonatal Deaths in a Series of Cases at the Lying-In Hospital," Meyer Rosensohn, M D, New York City

"Obstetrical Analgesia," James I Gwathmey, M D, New York City

Wednesday, March 31, 9 30 A M

"The Use of the Pomeroy Manœuver in the Treatment of Persistent Occipito Posterior Position," Harry Aranow, M D, New York City

"Morbidity in Obstetrics, Its Reduction by Means of a Vaginal Antiseptic During Labor," Harry W Mayes, M D, Brooklyn

"The Treatment of Placenta Previa," Ross McPherson, M D, New York City

"Accidental Hemorrhage," George L Broadhead, M D, New York City

"Postpartum Hemorrhage," John O Polak, M D, Brooklyn

"The Use of the Barton Forceps," William E Caldwell, M D, New York City

Wednesday, March 31, 2 30 P M

"Supernumerary Ureters with Extravesical Openings," Henry D Furniss, M D, New York City

"Radium Therapy in Carcinoma of the Cervix," William P Healy, M D, New York City

"The Treatment of Cancer of the Uterine Body," Harold C Bailey, M D, New York City

"Cesarean Section by a New Method," Edwin G Langrock, M D, New York City

"Hysteroplasty (a Preliminary Report)," Salvatore di Palma, M D, New York City

SECTION ON PEDIATRICS

Chairman, Roger H Dennett, M D, New York

Vice-Chairman, Arthur W Benson, M D, Troy

Secretary, John Aikman, M D, Rochester

Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

Joint Session with Section on Public Health

"The Use of Convalescent Serum in the Treatment of Measles," Richard A Lawrence, M D, Albany

Discussion opened by Rowland Freeman, Jr, M D, New York

"Etiology of Scarlet Fever," Alphonse R Dochez, M D, New York (by invitation)

"Prophylactic Treatment of Scarlet Fever," William H Park, M D, New York

"The Treatment of Scarlet Fever with Scarletinal Antitoxin," Francis G Blake, M D, New Haven, Conn (by invitation)

"Active Immunization to Scarlet Fever and Demonstration of Cases," Abraham Zingher, M D, New York

Discussion by Franklin A Stevens, M D, New York (by invitation), and Augustus B Wadsworth, M D, Albany

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Discussion opened by John J Moorhead, M D, New York City

SECTION ON EYE, EAR, NOSE AND THROAT

Chairman, Eugene E Hinman, M D, Albany

Secretary, James W White, M D, New York City

Place of Meeting, Waldorf-Astoria

Tuesday, March 30, 2 30 P M

"Indications for the Radical Frontal Sinus Operations" (with lantern slides), Richard T Atkins, M D, and George A Dixon, M D, New York City

Discussion opened by Cornelius G Coakley, M D, New York City

"Clinical Applications of the Functional Hearing Tests," Clayton Stewart Nash, M D, Rochester

Discussion opened by Edmund Prince Fowler, M D, New York City

"The Labyrinth Tests as an Aid in the Diagnosis of Syphilis of the Central Nervous System" Ralph Almour, M D, New York City

Discussion opened by John McCoy, M D, New York City

"Some Prevalent Misconceptions Regarding Motor Anomalies and the Validity of the Tests used in their Diagnosis," Alexander Duane, M D, New York City

Discussion opened by Ellice M Alger, M D, New York City

"The Modern Conception of Cataracts" (with lantern slides), Arthur J Bedell, M D, Albany

Discussion opened by Martin Cohen, M D, New York City

"Systemic Otogenous Infections," Samuel J Kopetzky, M D, New York City

Discussion by Wendell C Phillips, M D, and Daniel S Dougherty, M D, New York City

Wednesday, March 31, 9 30 A M

"Maxillary and Sphenoidal Sinusitis in Children," William Krieger, M D, Poughkeepsie.

Discussion opened by Harold M Hays, M D, New York City

"Some Unusual Effects in the Use of Cycloplegics," Edward Coleman Ellett, M D, Memphis, Tenn (by invitation)

Discussion opened by Alexander Duane, M D, New York City

Symposium on the Relation of Eye Lesions to the Non-Suppurative Nasal Accessory Sinus Diseases

Roentgenological Findings, Henry K Taylor, M D, New York City,

Ophthalmic Findings, Cyril Barnert, M D, New York City,

Rhinologic Findings and Therapeutics, Mark J Gottheb, M D, New York City

Discussion opened by Lee M Hurd, M D, New York City, and Charles J Imperatori, M D, New York City

Wednesday P M, March 31

Session to be devoted to special operative clinics and slit lamp demonstrations. The detailed program will be announced at opening session and on general bulletin

SECTION ON PUBLIC HEALTH, HYGIENE AND SANITATION

Chairman, Arthur D Jaques, M D, Lynbrook

Secretary, Leo F Schiff, M D, Plattsburg

Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

Joint Session with Section on Pediatrics
"The Use of Convalescent Serum in the Treatment of Measles," Richard A Lawrence M D, Albany

Discussion opened by Rowland Freeman, Jr, M D, New York City

"Etiology of Scarlet Fever," Alphonse R Dochez, M D, New York City (by invitation)

"Prophylactic Treatment of Scarlet Fever" William H Park M D, New York City

"The Treatment of Scarlet Fever with Scarletinal Antitoxin," Francis G Blake, M D, New Haven, Conn (by invitation)

"Active Immunization to Scarlet Fever and Demonstration of Cases," Abraham Zingher, M D, New York City

Discussion by Franklin A Stevens, M D, New York City (by invitation), and Augustus B Wadsworth, M D, Albany

Wednesday, March 31st, 9 30 A.M.

Joint Session with Section on Neurology and Psychiatry

"The Child as an Individual," Marion E Kenworthy, M D, New York City

"Mental Hygiene of the School Child," William A Howe, M D, Albany

The Organization of Mental Hygiene Clinics in the Schools of Schenectady," John E Burke, M D, Schenectady

Methods of Preventing Delinquency," Ralph P Truitt, M D, New York City

Discussion by Frankwood E Williams, M D, New York City

Wednesday, March 31st, 2 30 P M

"Periodic Health Examinations," Charles S Prest, M D, Brooklyn

"Health Legislation," Paul B Brooks, M D, Albany

"Lessening the Industrial Cost of Syphilis," Benjamin J Slater, M D, Rochester

"Post Graduate Medical Education, Its Value to Public Health," Frank H Richardson, M D Brooklyn

"The Establishment of Incinerator Districts" Richard Slee, M D, Rockville Center

SPECIAL DEMONSTRATION ON SYPHILIS

Thursday Morning, April 1st

The morning session, in the ballroom of the Waldorf-Astoria, will begin at 10 o'clock with a complete clinical and pathological demonstration of every phase of syphilis from the initial sore to the terminal parietic dementia, illustrated by patients pathological specimens, X-ray pictures, moving pictures (ten machines will be in constant operation) charts instruments, drugs, etc This demonstration in twelve cubicles will continue the entire day and will be in charge of the

leading syphilographers of New York City They will be in constant attendance to demonstrate characteristic lesions, to clear up doubts on differential diagnosis and to indicate the approved lines of treatment in the different phases of this disease In short they will stand ready to answer in the light of our present knowledge all questions in regard to syphilis In a later issue of this JOURNAL all the details of this demonstration will be published

Thursday Afternoon, April 1st

2 00 P M—"What Price Syphilis?" William F Snow, M D, New York City

2 30 P M—"Syphilis from the Point of View of the Internist," Udo J Wile, M D, Ann Arbor, Mich (by invitation)

2 45 P M—"Syphilis from the Point of View of the Neuro-psychiatrist," George H Kirby, M D, New York City

3 00 P M—"Syphilis from the Point of View of the Obstetrician" Alfred C Beck, M D, Brooklyn

3 15 P M—"Syphilis from the Point of View of the Pediatrician," Isaac A Abt, M D, Chicago, Ill (by invitation)

3 30 P M—"Problems Methods and Results in the Treatment of Syphilis," John H Stokes, M D, Philadelphia, Pa (by invitation)



NEWS NOTES



SPECIAL COMMITTEE OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK TO STUDY NURSING PROBLEM

A conference has been called for the purpose of discussing the questions stated in the notice of the meeting. The answers to the first three questions we believe will contribute valuable data to our records. Free discussion of the last two questions we hope may lead to a constructive program on the nursing question which will eventually be satisfactory to all concerned. The call is as follows

February 5, 1926

The Sub-Committee on Nursing of the Medical Society of the State of New York invites you to meet with representatives of the New York State Nursing Association, to consider in conference the following questions and trusts you will be present at the Academy of Medicine, 17 West 43d Street, New York City, on Friday, February 12th, 1926, at 3 P M

(1) The doctors from many parts of the state report a shortage of bedside nurses. What is your explanation of such shortage?

(2) What opportunity is offered to graduates from other states or countries maintaining courses of training of two years and over to become qualified for registration in this State?

(3) Does the equivalent of one year High School mean approved school marks or ratings, or does it mean intelligence, character, experience, desire and fitness for nursing as determined by credentials or by the personal observation of the officials of the Training School?

(4) What is the objection (a) To a two year course in basic training of a pupil nurse who will graduate as a trained nurse and be registered as such, (b) To post graduate or special courses for those who would specialize as teachers, public health, industrial and executive nurses

(5) Would you indicate how the curriculum which warrants the asking of the following state examination questions may be modified for the purpose of training the basic trained nurse?

SOME OF THE STATE EXAMINATIONS QUESTIONS

June 27, 1922

Define a stimulant. Name (a) a heart stimulant, stating the common adult dose, (b) a respiratory stimulant, stating the common adult dose

From what source are the pituitary preparations obtained? Give the therapeutic uses of these drugs

June 26, 1923

Medical Nursing and Nursing of Children

Differentiate the symptoms of apoplexy from those of alcoholic intoxication. Give the early nursing care of a person stricken with apoplexy

Why do convalescent patients often become constipated? Mention three nursing measures that may be employed to overcome this tendency

What are the important points in the nursing treatment of a malaria patient?

May 19, 1924

Medical Nursing and Nursing of Children

State the most common causes of anemia. Give an example of (a) primary anemia, (b) secondary anemia

Describe your method of caring for a child with eczema of the face. What particular foods should be avoided in such a case?

In caring for a child with marasmus how may the nurse determine if the food given is being digested and assimilated?

Name five common and serious complications of influenza

Give the nursing measures to be used for the relief of toxemia in typhoid fever

If left to your own discretion, what nursing measures would you employ to relieve tympanites in a case of pneumonia?

Give the nursing care of a patient with cardiac dropsy

Give nursing measures for the relief of low muttering delirium of typhoid fever

Mention the most dreaded complication of measles. Mention the class of children particularly susceptible to this complication

May 21, 1924

Bacteriology and Surgery

What is meant by (a) Gram-positive, (b) acid-fast?

How are new growths classified?

What is a Colles' fracture? In a case of a Colles' fracture what would you do pending the arrival of the doctor?

Outline briefly the nursing treatment in a case of surgical shock

What is Pott's disease? How may it be corrected?

Mention some nursing points that you would consider specially important in the care of a case of cataract after operation. Mention two prominent symptoms that may occur in carcinoma of the uterus. What advice would you give a woman who had those symptoms?

Dietetics

What foods should be restricted in scarlet fever? Why? What foods may be given in scarlet fever?

What type of diet should be given when there is a superacidity of the stomach?

What foods should be avoided in such a case?

September 22, 1924

Anatomy and Physiology

State the anatomic reasons why meningitis frequently follows mastoiditis.

What physiologic conditions influence the amount of urine excreted?

May 18, 1925

Medical Nursing and the Nursing of Mental and Nervous Diseases

What are the symptoms of an acute attack of nephritis?

Define arteriosclerosis. What are its most frequent complications?

Give the symptoms of empyema. In what disease is it a complication?

Differentiate between hemorrhage and perforation in typhoid fever.

What can be done to relieve the itching of an acute eruption?

Mention some objections to the use of sedatives in psychiatric cases. What nursing measures are helpful in obviating the use of sedatives and hypnotics?

What is the cause of general paralysis?

May 19, 1925

Pediatrics

What two diseases are frequently followed by suppurative otitis media? Why is this complication liable to be very dangerous?

Differentiate between the throat symptoms of tonsillitis and those of diphtheria.

Mention some of the predisposing causes of broncho-pneumonia in children. Briefly outline nursing treatment of a severe type of pneumonia in a child.

If a child showed symptoms of suspected appendicitis, what nursing precautions should be used before the arrival of a physician?

Differentiate between the throat symptoms of tonsillitis and those of diphtheria. By what means is a positive diagnosis of diphtheria determined?

Hygiene and Sanitation and the Principles of Bacteriology

Give three causes of flat-foot. Mention two exercises for the correction of flat-foot.

May 21, 1925

Obstetric Nursing

Name three digestive disturbances of infants and state nursing measures that may be used to overcome these disturbances.

Define version, ovulation, hematoma, phlegmasia alba dolens, atelectasis.

What is your opinion regarding the licensing of midwives?

Materia Medica

State the therapeutic use of strychnin.

What change would be expected in the rate and force of the pulse after giving a dose of

(a) caffeine

(b) chloral-hydrate

(c) pituitrin

Yours very truly,

E ELIOT HARRIS,
Chairman, Sub-Committee on Nursing

AMERICAN MEDICAL ASSOCIATION, ANNUAL MEETING

The Annual Meeting of the American Medical Association will be held in Dallas, Texas, April 19 and 23, 1926. The pleasure and profit of attending the meeting will be greatly enhanced by participation in a travel tour in which a group of doctors and their wives enjoy the companionship of one another, and are relieved of the burden of attending to the details of travel and hotels. Such a trip from New York, Boston and Philadelphia is arranged by the Lifsey Tours, Inc., 527 Fifth Avenue, New York, under the supervision of a committee of physicians whose

Chairman is Dr. N. B. Van Etten, President of the Medical Society of the State of New York, and whose Secretary is Dr. D. S. Dougherty, Secretary of the State Society. The details of the trip is set forth in a folder of 24 pages which may be obtained from the Lifsey Tours.

Special cars or a train if necessary, will be at the disposal of those who take the trip. The tour will start from the Pennsylvania Station, New York, on Friday, April 16, at 4:50 P. M. and will arrive in Dallas on Sunday, April 18, at 1:40 P. M. The party will remain in Dallas

until Friday, April 23d, in order to attend the A M A meeting

Doctors from upstate New York may take a train leaving Boston at 2 00 P M on April 16, Albany at 7 49 P M, Utica at 9 46, and Syracuse at 10 57, and Cleveland at 6 00 A M on April 17

From Dallas a choice of three itineraries is offered

- 1 To the Panama Canal Zone
- 2 To Mexico City
- 3 To California

The tour to the Panama Canal Zone will start from Dallas at 5 10 P M on Friday, April 23d, and the route will be to New Orleans, to Havana, to Cristobal, and to Panama. Returning the route will be back to Cristobal, Havana, New Orleans and Atlanta, and back to New York

The cost of this complete trip including transportation from New York and back to New York will be from \$452.75 to \$575 per person, varying with the accommodations which are chosen

The tour to Mexico City will start from Dallas on Friday evening, April 23, at 8 30 o'clock, and will include San Antonio, Laredo, Monterey and San Luis Potosi. Mexico City will be reached on Monday, April 26 at 6 10 A M

Tuesday to Friday will be spent in Mexico City

The return trip will start at 8 50 A M on Saturday, May 1, and the tour will include Torreon, Ciudad Juarez, El Paso, and St. Louis, and is scheduled to arrive back in New York at 5 50 P M on Thursday, May 6

The cost of this tour from New York and back will be from \$495 to \$565 for each person

The California tour will start from Dallas on Saturday, April 24, at 1 15 P M, and will include Fort Worth, El Paso, San Diego, Los Angeles, Del Monte, San Francisco, Salt Lake City, Colorado Springs, Denver and Chicago, and will end at New York at 5 25 P M, on Monday, May 17

The cost of this tour from New York and back will be from \$505 to \$565 per person

The booklet states that passports will not be required

Arrangements may also be made for a trip directly to Dallas and return. Also the Lifsey Tours, Inc., will arrange special trips for those who desire them

The details of the tours will be handled by the Lifsey Tours, Inc., with the physicians' Committee acting in an advisory capacity

MEDICAL SOCIETY OF THE COUNTY OF MONROE

A special meeting of the Medical Society of the County of Monroe was called by Dr A G Morris, President, on the 19th of January, 1926, to consider proposed changes in the Workmen's Compensation Law. The meeting was largely attended and the members gave enthusiastic and earnest attention to Dr H P Hourigan of Buffalo, N Y, Chairman of the Special Committee of the State Society, to study this problem and draft a bill embodying desired changes in medical procedure under this act. Dr Hourigan explained in detail the provisions of the bill, drawn up under the supervision of this Committee and introduced in the Assembly by Mr Miller (Assembly No 65). Dr

William Warren Britt of Tonawanda, Chairman of the Committee on Medical Economics of the State Society, opened the discussion which was continued by a number of the members present. The adoption of the following resolution was then moved, seconded and unanimously carried

'Be It Resolved That the Medical Society of the County of Monroe, in special meeting held January 19, 1926, approve and endorse the Miller Bill (Assembly No 65), entitled "An Act to amend the Workmen's Compensation Law, in relation to the treatment and care of injured employees, and medical procedure"

MEDICAL SOCIETY COUNTY OF ONEIDA

The annual meeting was held at the Hotel Martin, Utica, January 19th, 1926

The following officers were elected for 1926 President, Dr J L Golly, Vice President, Dr E R Evans, Secretary, Dr William Hale, Jr, Treasurer, Dr Hyzer W Jones, Librarian, Dr T Wood Clarke, Censors, Dr G M Fisher, Dr W B Roemer, Dr D E Pugh, Dr H F Hubbard, Dr C E Bartlett, Delegates, Dr A Sloan, Dr G M Lewis

A gavel, presented to Dr C B Teft 18 years

ago, when he was president of the Albany Medical School Alumni in this district, was presented to the Society by the family of Dr Earl D Fuller, to whom it was given after Dr Teft's death

Dr William Warren Britt gave a talk in which he referred especially to the proposed amendment to the workmen's compensation law

Dr Sands C Maxson spoke on the possibility of heredity in cancer disease and reported a case of glioma of a child which had occurred 35 years ago



THE DAILY PRESS



THE PHYSICIANS' HOME

The campaign for raising a two million dollar endowment for The Physicians Home, Inc., at Canadea, N. Y., is receiving considerable attention from the newspapers. The Herald Tribune, November 24, described the dinner given in the Waldorf on November 23rd, for the purpose of starting the campaign. The column called "The Lantern" in the same issue carried a semi-humorous suggestion by Edward Hope which, however, is a strong argument for the Home, for it pictures a physician inmate in a human light. The account reads:

"We are in favor of the drive, inaugurated last night, to raise \$2,000,000 for a home for aged and poverty stricken physicians. Our only question is whether two million is enough. Will that sum provide all the comforts and satisfactions to which a retired physician is entitled as a reward for honorable service?"

We advocate adding a million or two to provide special features, planned expressly for physicians.

Each room, for instance, must have a fireplace and before it the most comfortable of arm chairs. Beside the arm chair there shall be a shelf of books, selected by the occupant of the room. On cold, blustery winter evenings, then, the old doctors may make themselves perfectly comfortable and settle down to browse over their favorite volumes.

And now comes the special service.

After the ancient doctor has sat in peace for twenty minutes, a telephone at his side will ring and a trembling, hurried voice will say:

"Is this the doctor?"

"Yes."

"Doc, my baby's sick. I live eight miles northeast of town on the Smithville Road. I got to have you right away, Doc. Can you hitch up and come?"

This is the supreme moment. The ancient inmate of the home will settle himself deeper into his chair. He will place his slippers on the fender and wiggle his toes in the warmth of the blazing logs. He will clear his throat.

"I'm sorry," he will say quietly. "I have retired from active practice. I'll send a young fellow. I have here who is a specialist on babies."

Perhaps we are wrong. Perhaps it would break an old physician's heart to feel himself out of the fight, to send a young fellow, a specialist.

If the home should inaugurate such a practice as we have outlined and provide the necessary corps of specialists, probably the old doctors would forget all about it and kick off their slippers and say:

"All right. I'll be right over."

But surely there could be no harm in letting each of the old fellows take up, at last, the specialty he has been meaning for forty years to get at.

And, if there is room in the home for the physicians' wives, it would be a nice opportunity to renew an acquaintance that practically left off when the practice got so big.

If it were possible to raise an endowment large enough to pay every physician his back bills there would, of course, be no need of building a home at all."

RAISING THE DEAD

The Herald Tribune, December 19, gave a conspicuous space to a short notice of an address by Professor Yondell Henderson, of Yale University, on December 18, before the Dental Board of the United Kingdom in London. In the course of his address, Dr. Henderson gave an explanation of the miracle ascribed to Elisha by which the prophet raised from the dead the son of the Shumanite woman. The account reads:

"The child probably was in a coma as a result of eating poppies in the fields. Elisha breathed carbon dioxide, which is exhaled by all human beings, into the child, he explained, and recent experiments show that carbon dioxide, used with anaesthetics, allows greater control of breathing and speedier return from anaesthetics. He held this use of carbon dioxide would be a great advance in surgery."

Dr. Henderson is an authority on gas poisoning, and his researches into the nature of carbon monoxide poisoning and the effects of the inhalation of carbon dioxide with oxygen, enable any physician to repeat the seeming miracle on a person who is in deep coma due to carbon monoxide inhalation, or drowning, or electrocution.

In explaining the miracles of raising the dead one must consider what is meant by the word death. The American Indians say that when a man has a vision or vivid dream, he really dies, and his spirit leaves the body for a time and visits the happy hunting grounds. To the Eastern people, any deep coma is death, and even a modern scientist is sometimes unable to determine whether or not life is present, except by his success or failure in

efforts of resuscitation. Only recently a prominent man was quoted by the newspapers as saying that his daughter had spent four days in Heaven and had been restored by the efforts of her physician. Modern physicians are gratified that they are able to accomplish deeds of restoration which formerly seemed so impossible that they were called miracles.

A YEAR TO FIGHT DIPHTHERIA

This is the title of an editorial in the January seventh issue of the New York Sun. We are reproducing the editorial as an example of an excellent form of lay publicity on a medical topic.

"Diphtheria is a disease medical science has practically conquered. The physician can determine what child is immune from it and what child is liable to be attacked by it. He can administer a serum immunizing those who are disclosed to be subject to it.

"All that is needed to translate these protective and preventive possibilities into a great and lasting boon to humanity is popular understanding of the virtues of the serum and public recognition of the simplicity and safety with which it may be used. The public is slow to take advantage of such advances in science. It can be induced to use them only by intensive instruction long continued and intelligently directed. This year it is to have such instruction in the needlessness of illness, suffering and death from diphtheria.

"The educational course will be directed by the State Department of Health. It will utilize every agency of publicity the department can command. Commissioner Nicoll has issued a proclamation calling on all health officers to help. He wants the active assistance of physicians, parents, State, county and municipal officials, teachers, preachers, whoever has responsibility for children or can command their attention. He has opened a campaign for eradication of diphtheria, to accomplish its object in twelve months, and thus rid infancy of one of its worst menaces.

"None but the callous and the ignorant will refuse to join this movement. It means innocent lives saved, children made safe, disease balked. If diphtheria is not eradicated from New York State this year it will mean that the people are too careless to safeguard their infants from death."

President, Dr. J. L. Goss

E. R. Evans, Secretary, Dr. ALTH

Treasurer, Dr. Hyzer W. Jor

T. Wood C

W. B.

NOISE AND HEALTH
is affected by noise, especially
necessary, it, Del's health officer. The
to evade a decision, Dr. Cng with two uncer-

tain quantities, first, the measurement of the noise itself, and second, the estimations of the susceptibility of the patient. The New York Herald-Tribune, January 17, reports the efforts of Dr. E. E. Free, Scientific Editor of "Forum", to answer the question, "How Noisy is New York?"

Dr. Free devised an instrument to measure the intensity of noise. The "sound unit" that adopted was just twice as much noise as enters the ear when there is no particular cause of noise or when the hum of a great city is reduced to its lowest level. Ten units are a loud noise, and seventy units are almost deafening.

The doctor reported that the noisiest place he found was at Sixth Avenue and Thirty-fourth Street, because of the combined rumble of the elevated and surface lines, and the subway and street traffic. There the record was 50 sound units.

Starting on Fifth Avenue, the noise on Washington Square was mild, 20 units. At 23rd Street where crosstown surface cars and those of Broadway crossed Fifth Avenue, the noise was 35 units, and at 42nd Street, the noisiest corner on Fifth Avenue, it was 40 units. The quietest place in this city was in the midst of Greenwich Village.

Most of the noise of the city arises from its traffic. Human beings make virtually no noise. It was only in the lower East Side that there was any discernable noise traceable to human voices. There people are so thickly packed together that their voices alone registered from five to ten units of sound.

The noise of the motor trucks is greater than that of the elevated railroad. The next loudest noise makers were the riveters on steel constructions, horns on automobile trucks, pneumatic drills, and the Fire Department apparatus.

The survey of city noise was undertaken for the purpose of studying its effect on the physical and mental health of human beings. The conclusion was that, however irritating a noise may be, its damage is not serious and possibly is so small as to be negligible. City noise is street noise. If one keeps away from the street, he can be practically free from the annoyance of noise.

The estimation of the effects of noises is complicated by the fact that a person readily becomes accustomed to a continuous noise, though it be annoying at first. One even becomes accustomed to the noises such as those of the elevated railroads, which come only at intervals, provided they are monotonous in their recurrence. What are called unnecessary noises are annoying because they are strange. Probably, if a noise recurs regularly and is heard day after day, its unpleasantness soon ceases and its very existence is unnoticed.



BOOKS RECEIVED



- THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY A New and Complete Dictionary of the Terms Used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Science, Biology, Medical Biography, etc., with the Pronunciation, Derivation, and Definition, including much Collateral Information of an Encyclopedic Character Edition revised and enlarged. By W A NEWMAN Octavo of 1344 pages with 338 illustrations in color Philadelphia and London, W B Saunders Company, 1925 Flexible binding, \$7.00, thumb index, \$7.50
- GYNECOLOGIC UROLOGY By LYNN LYLE FULKERSON, A.B., M.D., F.A.C.S. Octavo of 247 pages, with 166 illustrations including 86 original and 14 color plates Philadelphia, P Blakiston's Son and Company, 1925 Cloth, \$6.00
- REPORTS OF THE ST ANDREWS INSTITUTE FOR CLINICAL RESEARCH. St Andrews, Fife. Volume 2 Octavo of 190 pages, with illustrations. London, Humphrey Milford, New York, Oxford University Press, 1924 Cloth, \$3.00 (Oxford Medical Publications)
- YOUNG AGE AND OLD AGE. By LEONARD WILLIAMS, M.D. Octavo of 296 pages London, Humphrey Milford, New York, Oxford University Press, 1925 Cloth, \$3.25 (Oxford Medical Publications)
- ANESTHESIOLOGY By LIEUT-COLONEL ANDREW BUCHANAN, I.M.S. (Retd.), M.A., M.D., M.Ch., M.A.O. Octavo of 82 pages with illustrations London, Humphrey Milford, New York, Oxford University Press, 1924 Cloth, \$2.50 (Oxford Medical Publications)
- CLINICAL RESEARCHES IN ACUTE ABDOMINAL DISEASE. By ZACHARY COPE, B.A., M.D., M.S. (Lond.), F.R.C.S. (Eng.) Octavo of 148 pages with illustrations London, Humphrey Milford, New York, Oxford University Press, 1925 Cloth, \$4.00 (Oxford Medical Publications)
- PARASITOLOGY FOR MEDICAL STUDENTS By ALEX MILLS KENNEDY, M.D. (Glas.) Octavo of 142 pages with illustrations London, Humphrey Milford, New York, Oxford University Press, 1925 Cloth, \$3.00 (Oxford Medical Publications)
- THE COMMUNICABLE DISEASES How They Spread and How They May Be Controlled By ALLAN J McLAUGHLIN, M.D. Octavo of 269 pages New York and London, Harper and Brothers, 1923 Cloth, \$2.50 (Harper's Public Health Series)
- PUBLIC HEALTH IN THE UNITED STATES An Outline with Statistical Data By HARRY H MOORE. Octavo of 557 pages, with illustrations New York and London, Harper and Brothers, 1923 Cloth, \$4.00 (Harper's Public Health Series)
- THE MEDICAL CLINICS OF NORTH AMERICA Volume 9, Number 2, September, 1925 (New York Number) Published every other month by the W B Saunders Company Phila. and London. Per Clinic Year (6 issues), Cloth, \$16.00 net, paper, \$12.00 net.
- THE ART OF MEDICAL TREATMENT With Reference Both to the Patient and to his Friends. By FRANCIS W PALFREY, M.D. Octavo of 463 pages. Philadelphia and London, W B Saunders Company, 1925 Cloth, \$4.50
- ON WRITING THESES FOR M.B. AND M.D. DEGREES By SIR HUMPHREY ROLLESTON, Bart., K.C.B. 16mo of 28 pages London, John Bale, Sons & Danielson, Ltd., 1925 Paper, 1 shilling
- ESSENTIALS OF PSYCHIATRY By GEORGE W HENRY, M.D. Octavo of 199 pages Baltimore, Williams and Wilkins Company, 1925 Cloth, \$2.75
- THE WRITING OF MEDICAL PAPERS By MAUD H. MELLISH Second edition, revised. 12mo of 168 pages Philadelphia and London, W B Saunders Company, 1925 Cloth, \$1.50
- MODERN MEDICINE Its Theory and Practice in Original Contributions by American and Foreign Authors Edited by SIR WILLIAM OSLER, Bart., M.D., F.R.S. Third Edition, thoroughly revised Re-edited by THOMAS McCRAE, M.D., assisted by ELMER H FUNK, M.D. Volume 1 Octavo of 845 pages, with illustrations Philadelphia and New York, Lea and Febiger, 1925 Cloth, \$9.00
- EXPERIMENTAL INVESTIGATIONS INTO THE EMOTIONAL LIFE OF THE CHILD COMPARED WITH THAT OF THE ADULT By HELGA ENG. Translated by GEORGE H MORRISON, M.B. (Edin.) Octavo of 243 pages, with 9 plates London, Humphrey Milford, New York, Oxford University Press, 1925 Cloth, \$6.50 (Oxford Medical Publications)
- SURGICAL CLINICS OF NORTH AMERICA. Volume 5, Number 4, August, 1925 (Chicago Number) Published every other month by the W B Saunders Co, Phila. and London. Per Clinic Year (6 issues) Cloth, \$16.00 net, paper, \$12.00 net.
- INSECTS AND DISEASE OF MAN By CARROLL FOX, M.D. Octavo of 349 pages, with 92 illustrations Philadelphia P Blakiston's Son and Company, 1925 Cloth, \$4.00
- INSULIN AND ITS USE IN DIABETES Part 1—Physiology by J J R MACLEOD Part 2—Clinical Section by W R CAMPBELL. Octavo of 242 pages Baltimore, Williams and Wilkins Company, 1925 Cloth, \$4.00 (Medicine Monographs, Vol 6)
- THE MEDICAL CLINICS OF NORTH AMERICA Volume 9, Number 3, November, 1925 (New York Number) Published every other month by the W B Saunders Company, Phila. and London Per Clinic Year (6 issues) Cloth, \$16.00, Paper, \$12.00
- PHYALION OR THE DOCTOR OF THE FUTURE. By R. M. WILSON, M.B., Ch.B. E. P Dutton & Company, New York.
- EARS AND THE MAN—STUDIES IN SOCIAL WORK FOR THE DEAFENED By ANNETTA W PECK, ESTELLE E. SAMUELSON and ANN LEHMAN with an introduction by WENDELL C. PHILLIPS, M.D., President-Elect of the American Medical Association. F. A. Davis Company, Philadelphia, 1926 Price, \$2.00 net.
- MENTAL INVALIDS Being the Morison Lectures delivered before the Royal College of Physicians of Edinburgh in June, 1925 By C. C. EASTERBROOK M.A., M.D. F.R.C.P.E., Physician-Superintendent, Crichton Royal Dumfries Oliver and Boyd, Edinburgh. Price, \$5.00
- NON-SURGICAL TREATMENT OF DISEASES OF THE MOUTH, THROAT, NOSE, EAR AND EYE. By THOMAS H. ODENEAL, M.D. Otolologist, Rhinologist Laryngologist and Ophthalmologist to the Beyer Hospital Corporation, Beverly, Mass. P Blakiston's Son & Company, Philadelphia, Pa. Price \$4.00

TEXT-BOOK OF HUMAN PHYSIOLOGY INCLUDING A SECTION ON PHYSIOLOGIC APPARATUS By ALBERT P BRUBAKER, A.M., M.D., LL.D. Eighth edition, revised and enlarged. Octavo of 853 pages with 367 illustrations. Phila., P. Blakiston's Son and Co., 1925. Cloth, \$5.00.

This text-book has enjoyed considerable popularity among medical students and teachers for many years, and deservedly. The Eighth Edition includes many revisions and enlargements, incorporating new material and new diagrams. The result is a comprehensive presentation of the essential facts of Physiology for the student and practitioner of medicine, in a form admirably characterized by brevity and lucidity.

Among the subjects which have been revised are, notably, those of the metabolism of fat, the relation of the pancreas and its internal secretion, insulin, to the metabolism of the carbo-hydrates, the electro-cardiogram, and the indirect method of determining heat production. New diagrams of the innervation of the heart and of the bladder, the acoustic tracts, the facial nerve and its associated nerve tracts will be found to be helpful.

G. H. R.

METHODS IN SURGERY Used in the Surgical Divisions of Barnes Hospital, St. Louis Children's Hospital and Washington University Dispensary. By GLOVER H. COPIER, M.D. The C. V. Mosby Co., St. Louis, 1925. Price, \$3.00.

This book is a compend of the methods, routines, suggestions and instructions prepared primarily for the guidance of the house officers and students of Washington University School of Medicine, working in surgical divisions of the Barnes Hospital, the St. Louis Children's Hospital, and the Washington University Dispensary. It includes outlines for case history taking, preoperative and postoperative care of patients, diet lists, etc.

Such a compend encourages thoroughness and uniformity in the examination and care of patients, and is a handy reference book for an interne staff of such institutions as have adopted the technique and the routine described. There are included references to subjects which concern the relations between the visiting and interne staffs and the administrative and executive sides of a general hospital. Outlines of technique and routine such as are found in this book would serve a useful purpose even to the general practitioner, in helping him to avoid those errors of omission in diagnosis and treatment which are the penalty of a busy general practice.

J. R.

NEWER METHODS OF OPHTHALMIC PLASTIC SURGERY By EDMUND B. SPAETH, M.D., F.A.C.S. Octavo of 258 pages with 168 illustrations. Philadelphia, P. Blakiston's Son and Co., 1925. Cloth, \$5.00.

As the title implies this book deals with the newer methods of plastic surgery, many of which were used during and since the World War.

The Foreword by Dr. W. H. Wilmer is followed by the text written in two parts.

Part One—Deals with the general principles of Plastic Surgery. This is subdivided into four chapters.

Chapter I. General Operative Technique, Anæsthesia, Routine Operative Regime, etc.

Chapter II. Skin Grafts, the various types used.

Chapter III. Flaps, pedunculated, tubulated, etc.

Chapter IV. Appliances for Pressure, Prostheses, etc.

In Part II the author dealing more especially with

the ophthalmic aspect, arranges his text in four chapters and in appendix.

In Chapter V the subject of Ectropion, Entropion and other lid conditions are considered.

Chapter VI. Discusses lid conditions as Canthotomy and Canthoplasties, Tarsorrhaphies, Deformities of the lid margins, etc.

Chapter VII. Relates to Symblepharon, Restoration of the Cul-de-sac, Reconstruction and Restoration of the Lids and Orbital Socket.

Chapter VIII. Physiotherapy and Medication in its application to Ophthalmic Plastic Surgery.

In the Appendix is a rather complete Bibliography.

The book is well written, clear and concise and is illustrated with 170 selected cuts.

The author, as he states in his introduction, does not describe the many well known methods for the correction of ocular defects, but rather describes his and other newer methods. The illustrated cases and the procedure followed are most instructive.

No two cases are alike in this branch of Surgery and the operator must therefore study and then select the best procedure in each case. This book would help much in suggesting ways and means to obtain the best results.

On Tarsus Resections the operation advised by Dr. Wheeler is described and the others only referred to. The author takes a firm stand against paraffin injections, also advises a Mules glass ball implanted after enucleation.

In the 250 odd pages the material is condensed and arranged so as to be most helpful and the references make further study easily available. Not only the Oculist but the General Surgeon will find this book most valuable.

We endorse most heartily Dr. Wilmer's statement at the end of his Foreword, namely:

"In this addition to scientific literature, the author has made an important contribution to ophthalmic surgery and supplied a real ophthalmic need."

J. H. O.

PYE'S SURGICAL HANDICRAFT A Manual of Surgical Manipulations, Minor Surgery, and other Matters connected with the work of house surgeons and surgical dressers. Edited and largely rewritten by W. H. CLAYTON-GREENE, C.B.E., B.A., M.B., B.C. (Camb.), F.R.C.S. (Eng.) Ninth Edition, fully revised. Illustrations. *Vel de minimis curat chirurgicus*. William Wood and Co., New York, 1924. Price, \$7.00.

This is the ninth edition of a book originally published by Walter Pye, but which has since been rewritten by W. H. Clayton-Greene.

The purpose of the original author to "present the details of surgical work as it appears from the point of view of the house-surgeon," has been followed out pretty closely. The young surgeon will find a mass of valuable information, and many useful hints that the average text-book on surgery does not supply. This is especially true of the treatment of emergency conditions, such as accidental wounds, hemorrhage, the principles of the use of splints, and their varieties, the immediate treatment of fractures, &c. &c.

There is a good deal of material that is entirely unnecessary and which leaves a rather poor impression. The detailed description of the Wassermann reaction, the examination of urine, and the principles of the X-ray apparatus, are entirely out of place. These however, are minor points as compared with the excellent merits of the rest of the text.

HERMAN SHANN

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THE TREATMENT OF CERTAIN CARDIAC EMERGENCIES

By HAROLD E B PARDEE, M D

NEW YORK CITY

I THOUGHT that it might be interesting to review with you the treatment of certain emergencies which have a common cause in cardiac disease. Some of these conditions are very serious, others are merely startling or alarming to the patient. Anyone of them may serve to call the doctor out at uncomfortable hours of day or night, and so may be properly spoken of as an emergency.

One of the most alarming conditions that a physician is called upon to meet is an attack of acute oedema of the lungs. The patient is sitting up in bed, weak and exhausted, restless, gasping for air, looking as though each breath were going to be his last. He usually raises pinkish frothy sputum and examination will reveal that the lungs are full of the numerous fine rales and ronchi that are typical of pulmonary oedema. You may wonder, perhaps, that I have mentioned pulmonary oedema as a cardiac emergency, but you will realize on second thought, I am sure, that it is always due to cardiac failure and so belongs quite rightly in this discussion.

Oedema of the lungs may come on quite acutely or it may develop rather gradually during the course of a few hours in a patient who has some other sickness. The paroxysmal form occurs in the course of chronic hypertension and in these patients the blood pressure will be found well above 200 mm. It may occur in the course of arteriosclerosis of the coronary arteries, sometimes being the result of coronary thrombosis with cardiac infarction. Sometimes it seems likely that it is not due to thrombosis but to a temporary functional failure of the heart. In these coronary cases the blood pressure is low, 100 mm or less, or, if it has been previously elevated, is lower than its accustomed level and probably not above 150 or 160 mm. Examination of the heart in such a case may reveal no abnormality, except a faintness of the heart sounds. Neither

enlargement nor murmurs need be present, though occasionally either or both will be found.

Oedema of the lungs may occur in the course of pneumonia, but here we must make a sharp distinction between oedema with its many fine crackling rales and the condition found when there is much unexpelled mucus in the bronchial tubes and many coarse and fine ronchi or sonorous rales are heard.

Oedema of the lungs may sometimes be the result of a period of cardiac overstrain in a patient who already has valvular disease or chronic myocardial changes. During labor, a woman with heart disease will occasionally develop an acute form of oedema of the lungs. Sometimes a person with myocardial changes will bring on oedema of the lungs by some unusual effort, perhaps lifting a heavy weight, perhaps an unaccustomed more prolonged exertion. Not infrequently the effort of walking up a long hill or against a strong wind will be the cause of an attack. This may sometimes be the first sign of myocardial defect, though the patient will usually on careful questioning admit to having had some unusual dyspnea or precordial discomfort on exertion for a time previous to the attack.

The treatment of oedema of the lungs, whatever its cause, demands rest in a comfortable position, an easy chair is usually better than bed—and a hypodermic of $\frac{1}{4}$ grain of morphine sulphate and 1-50 grain of atropine sulphate. For further treatment, we must now consider both the etiology and the condition of the patient. If the blood pressure is very high—above 200—a hypodermic of 1-50 grain of nitroglycerine may work a magic change, reducing the blood pressure and relieving the strain upon the heart. In patients without the hypertension etiology nitroglycerine does no good.

If the veins in the patient's neck are found to be distended with blood, even when he is sitting erect in a chair, it indicates that there is a considerable degree of back pressure failure and overdistension of the heart with blood. The

veins are connected directly to the right auricle and so the pressure in them may be taken as an indication of the pressure in the right auricle. When the heart fails in its function of pumping the blood this accumulates in the veins and causes them to be over-distended. Thus we may measure the degree of cardiac failure by the height to which the veins must be raised before they empty. If we observe the veins at the bend of the elbow and gradually raise the arm from its natural position out to the side and upward we will find that at a certain level the vein seems to be no longer distended. This level measures the degree of back pressure in the right heart. Normally the veins at the bend of the elbow will collapse when raised to the level of the second rib, anything further than this indicating an abnormal pressure within the vein. If we must raise the vein to above the level of the clavicle it indicates a rise of venous pressure which is so great as to be harmful to the cardiac function.

Phlebotomy is the best means to relieve this. Blood should be drawn until the veins of the neck are no longer distended. It may take only 2 or 3 ounces to do this or perhaps 5 or 10 ounces. There is nothing to be gained by taking more than an amount that will relieve the congestion but we must take at least enough to do this.

If there is much cyanosis and if the above measures do not promptly relieve it, oxygen inhalation should be used. This is always advisable with pneumonia patients. The theoretical ideal for oxygen inhalation is a mask which may be placed over the face or a mouth-piece, to insert in the mouth similar to that which is used in the gas mask. These things are often not well tolerated by patients who are very short of breath, so that it is often necessary to have some other means of administering oxygen. The old familiar funnel on the end of a rubber tube has been frequently shown to have very little avail in raising the oxygen concentration of the patient's inhaled air. Each expiration blows the funnel empty of oxygen so that the inspiration is practically from room air. The most satisfactory method for an emergency is to direct the stream of oxygen from the rubber tube into the patient's nose or mouth, whichever he is using for breathing. For more prolonged use a bed tent consisting of half barrel hoops covered with a transparent rubberized silk should be placed over the patient's head and shoulders and the oxygen delivered beneath this. If it is allowed to run in at the rate of about one or two liters per minute it will produce a satisfactory concentration of oxygen beneath the improvised tent. Specially purified medical oxygen is not necessary for this purpose. The ordinary commercial oxygen is much cheaper and quite as satisfactory.

Digitalis is indicated if the patient has valvular disease or myocardial disease, but in the purely

hypertension cases I see no reason for it. Their heart is normal, and if relieved of the strain of the hypertension will recover promptly enough for itself. Digitalis will be given differently depending upon whether the patient has received digitalis or any of its allies at any time within the previous two weeks.

A patient with oedema of the lungs who has not had any digitalis within two weeks may be given a large intravenous dose. It has been found recently that the generally administered doses of the intravenous digitalis preparations are much too small. One or two ampules—15 to 20 minims of digitan solution or digifolin or digalin is so small a dose as to be practically useless.

In working with digitalis two things have been found to give an early indication of digitalis effect. These are a slowing of the ventricles when auricular fibrillation is present, and a diminution in the height of the T wave of the electrocardiogram. Both of these changes take place with an amount of digitalis much less than needed to produce the therapeutic effect. It has been found that one or two ampules of these drugs is less than the amount which will affect the T wave of the electrocardiogram or slow the heart rate with auricular fibrillation. To produce the slightest appreciable effect at least three ampules are needed. To produce a prompt and marked effect we need an amount equal to 1 minim of the solution per pound of the patient's weight—8 ampules for a patient of 120 lbs and 10 ampules for a patient of 150 lbs. It should be given slowly over a period of 2 or 3 minutes so that it may be well mixed with the patient's blood and not arrive in the heart all at one time.

This may seem an impossible dose to you, but I have demonstrated to my own satisfaction at least that these preparations are no stronger than a good tincture of digitalis and that they do not produce any demonstrable effects in doses of less than three or four ampules, 25 or 30 minims per pound of body weight of the patient. If tincture of digitalis is given by mouth in the same dose—1 minim per pound of body weight—the first demonstrable effects will appear in from 2 to 4 hours and the maximum effect of the dose will not be reached until from 6 to 10 hours after administration. This is much too late to be useful for an emergency. The intravenous administration of this dose of the digitalis preparations does not produce instant effect but does something by 15 minutes, with the maximum effect between 1 and 2 hours after administration.

For patients who have been receiving digitalis within the past of 2 weeks it is very difficult to decide upon the intravenous dose. We must err on the side of giving too little rather than too much and 30 or 45 minim doses are proper to be repeated after 2 hours if it seems necessary.

I cannot leave the subject of intravenous digitalis without a mention of *ovabian*, the gamma strophanthin. This drug is said to act very quickly and should be given in a half milligram dose to a patient who has not had any digitalis previously. It should not be given at all to one who has already been taking digitalis, for the therapeutic and toxic doses are so close that dangerous poisoning may result. We know that definite effects are produced by a half hour after administration, but though it is generally credited to act quicker than digitalis yet experimental proof of this has not been published.

A word about the use of adrenalin in these cases. It is often given by physicians for these attacks because of the patient's weak pulse and low blood pressure. It seems to me to be absolutely contra-indicated. The best way to strengthen the pulse and raise the blood pressure should be to help the heart to pump out of the blood coming to it, and yet many physicians have told me of recoveries following the use of adrenalin and attributed by them to its use.

Another cardiac emergency that the physician meets occasionally is due to thrombosis of a branch of the coronary arteries with infarction of an area of the heart muscle. If the patient does not die almost instantly of this, the picture will be one of profound shock with almost imperceptible pulse, pale ashy grey skin and profuse perspiration. There may be vomiting or nausea or much eructation of gas. There may be no dyspnoea, or, if many rales develop in the lungs, dyspnoea may be slight or moderate. The only sensation may be an oppression in the lower anterior chest, or there may be precordial pain of any degree up to the most severe pain with wide radiation—typical angina pectoris.

For these attacks, morphine and atropine should be given by hypodermic in the doses mentioned and the morphine repeated in 15 or 20 minutes if the first dose does not quiet the patient and give relief from the discomfort. These patients are best in bed. They do not usually have the orthopnea that accompanied pulmonary oedema. Adrenalin is bad here, too, I believe, though it is sometimes given because of the weak pulse. This weak pulse is in part a life-saving measure. To raise the arterial pressure too much might stop the circulation, for the damaged heart cannot eject the blood against much resistance. Nitroglycerine is not indicated for the blood pressure is already so low that further reduction would be harmful. Absolute rest is all we can do to tide over this emergency until the heart itself can recover its strength. Relatively slight exertions, such as getting in or out of bed, can easily overstrain the weakened heart, and the patient should not be moved from one place to another for at least several hours

after the attack. There is great danger of sudden death at this time.

Another type of cardiac emergency not usually so serious as those just discussed is the severe attack of precordial pain. The pain may be due to coronary narrowing, or to aortitis, or to the occurrence of many premature beats in a person with a neurasthenic hypersensibility. Sometimes tobacco will cause precordial pain by producing arrhythmia and coincidentally raising the threshold of sensibility. Pains of many sorts and varied grades of intensity are produced by these things. Though the pain is sometimes only slight, yet at other times or in other patients there may be a pain that is so severe and radiates so widely, a typical angina pectoris, that the patient feels he is in imminent danger.

The situation of the pain helps us somewhat with the diagnosis, but we must carefully distinguish between the site of the pain itself and the distribution of its radiation. With any of these causes the radiation may be much the same, across the chest, about the apex beat, to the left shoulder, the left arm, the left side of the neck, or perhaps to corresponding places on the right side, or to both sides. This radiation is unimportant, but the seat of the pain itself, if retrosternal and below the level of the third rib, is indicative of a coronary etiology, if retrosternal and above the third rib of aortitis, and if about the region of the apex beat indicates that the cause is less likely to be organic disease of the heart than an abnormal sensibility with or without the complication of arrhythmia or tobacco.

Treatment for the patients with coronary disease or aortitis consists of rest and nitroglycerine. Nitroglycerine may be given as a tablet to be dissolved in the mouth. For severe attacks, the dose should be 1-100 grain, though 1-200 grain is usually enough. Amylnitrate by inhalation may serve better in some cases, but the severe headache that may follow makes it unsatisfactory if it must be given often. Morphine is not necessary for the pain and has no beneficial effect unless the patient is very restless and cannot be quieted by other means. The treatment of the causal condition is important with these patients so that a recurrence of the attack may be prevented. To avoid overexertion and the eating of large meals, to regulate the bowels so that stasis does not occur, to take diuretin if the cause is coronary disease and to have thorough antiluetic treatment if there is luetic aortitis, these are the chief lines to be followed.

When the pain is due to a combination of neurotic hypersensibility with arrhythmia or some form of heart disease, the best treatment for the attack is aromatic spirits of ammonia or a fair-sized dose of bromide, say 30 grains. To prevent recurrence with these patients demands the greatest care. They must be relieved of nervous

veins are connected directly to the right auricle and so the pressure in them may be taken as an indication of the pressure in the right auricle. When the heart fails in its function of pumping the blood this accumulates in the veins and causes them to be over-distended. Thus we may measure the degree of cardiac failure by the height to which the veins must be raised before they empty. If we observe the veins at the bend of the elbow and gradually raise the arm from its natural position out to the side and upward we will find that at a certain level the vein seems to be no longer distended. This level measures the degree of back pressure in the right heart. Normally the veins at the bend of the elbow will collapse when raised to the level of the second rib, anything further than this indicating an abnormal pressure within the vein. If we must raise the vein to above the level of the clavicle it indicates a rise of venous pressure which is so great as to be harmful to the cardiac function.

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FERTILITY AND HEALTH*

By DONALD MACOMBER, M.D.,

BOSTON, MASS

Fertility may be defined as a function of the reproductive organs, just as digestion is that of the stomach and intestines. The degree of fertility of a given individual depends upon two general considerations. One is the racial inheritance as to fertility, and the other those environmental influences to which the individual is exposed and which may tend to lower that particular fertility. With the social conditions under which we live, it is not possible as yet to breed strains of human beings for high fertility or other desirable characteristics, but the very fact that we are at present powerless to control the optimum inheritable fertility makes it all the more important to understand and control the environmental influences which seem to be producing an ever-increasing amount of sterility among the very elements of our population which it is most desirable to perpetuate. It has seemed important, therefore, to analyze as far as possible the various factors in the environment which are active in the production of reduced fertility.

In the first place, it is obvious that, just as with animals, the individual will be more susceptible to influences during the growth period, but due to the greater length of this period and the more complicated development that has to take place during it, there will be an even greater percentage of failures, or partial failures, in the human being than in any species of animal. It will be necessary, therefore to subdivide this period of growth much more minutely than would be the case with a similar study of animal development and growth in general.

It is unlikely that we shall find much evidence that failures of development during intra-uterine life play any important role in the lowering of fertility. Malnutrition in infancy also will probably prove unimportant in this regard. Beyond this stage, however, the general health and growth will be of increasing importance. This is particularly true of body mechanics—posture etc—and the formation of good health habits which lay the necessary foundation on which the rapid and complicated development of adolescence must rest. It must be understood that mental as well as physical habits are important.

With the onset of puberty itself and the beginning of menstruation we are more likely to encounter deviations from normal growth and development and if these are neglected permanent disabilities may result. The changes which take place during the few years of adolescence in

which the child is converted into a woman are enormous. They constitute a most serious strain to which the growing girl is subjected. Consider for a moment the extent of these changes. They may be grouped under three headings. First, there is a marked period of physical growth in height and weight, then there are those changes, both external and internal in the reproductive organs, whereby they pass from an infantile inactive state to the full size and activity of functioning womanhood, and, finally, those intellectual, emotional and social changes which characterize the transition from the child mind to that of the adult woman. Is it any wonder that mismanagement at this time may cause partial or complete failures of function later in life? One cannot help feeling that a modicum of the care exercised in the management of animal breeding would prevent a great deal of the low fertility we find so prevalent in the complicated life of the the present day.

In pursuing our inquiry into the conditions in the life of the woman for possible factors that may lower fertility, we find two other periods of stress in either of which trouble may appear. I refer to early married life and the actual bearing of children. In the former bad habits and lack of knowledge of the laws of hygiene may lead to serious chronic congestions. Chronic congestion always lowers fertility in itself, but is chiefly harmful because of the increased susceptibility to infection which it causes. Many cases of endocervicitis and of endometritis or salpingitis owe their presence to the ignorance of young married people. It is possible that non-function of the ovaries—at least as far as their oögenic action is concerned—may have a similar cause. There is still another frequent cause for the development of congestion in the woman, and that is the practise of unphysiologic methods of preventing conception. Discussion of this important subject would carry us too far afield at this time, suffice it to say that many cases of permanent sterility undoubtedly owe their origin to errors of this kind.

We have now sketched the dangers to which the woman is particularly liable during adolescence and early married life. It remains to add a word about the dangers to fertility inherent in the bearing of children. There are two ways in which pregnancy and parturition may reduce an otherwise normal fertility. One acts directly upon the constitution of the woman and is brought about by the failure of a poor vitality to meet the strains which motherhood imposes; the other is more mechanical in origin and de-

* Read at the Annual Meeting of the Medical Society of the State of New York at Syracuse May 12 1925

stram, must have sufficient rest and careful regulation of the bowels. Taking some mild sedative continuously for a while and receiving definite reassurance of the harmlessness of the attack will each do its part toward effecting a cure. They are difficult cases though, and we cannot expect them to recover promptly.

Paroxysmal attacks of rapid heart action are very distressing to the patient and so constitute another sort of emergency. The heart feels as if it were fluttering or spinning like a top or racing and the abrupt onset and cessation of the attacks is easily appreciated by the patient. We must distinguish between these attacks and simple tachycardia, which does not start or stop abruptly and which is due to a different sort of cardiac mechanism.

Paroxysms of tachycardia are due to over-irritability of a focus in the heart muscle so that it initiates a rapid series of beats. The focus may be in the auricles, ventricles or auriculo-ventricular node, but in each case the result is a rapid, *regular* heart beat. Auricular flutter may also occur in a paroxysmal form and result in a rapid regular beat which is practically impossible to tell from the sort of tachycardia just mentioned unless an electrocardiogram can be obtained. Auricular fibrillation may occur in a paroxysmal form and cause a very rapid heart rate which is *irregular*. By this sign it is easy to distinguish from the other paroxysms of rapid heart action.

Attacks of paroxysmal tachycardia may sometimes be stopped abruptly by pressure upon the vagus nerve in the neck. It is somewhat of a trick to press upon the vagus, as it lies deeply in the neck in the angle between the larynx and the vertebral muscles. It is firmly bound within the carotid sheath, however, and this is the key to its location—behind and mesial to the carotid artery. It helps greatly to have the patient lying on his back with the head in a position to relax the sterno-mastoid muscles, and turned slightly away from the side you are pressing upon. The thumb is better than the fingers for this purpose, using the left thumb for the right vagus, and vice versa, pressing it in mesial to the carotid at the point just below the hyoid bone, where the artery is most superficial. When you are certain that your thumb is mesial to the artery so that it will not slip away when you press upon it, then press directly backward, catching the artery between your thumb and the vertebral muscles. This presses upon the vagus nerve and the pressure does not need to be maintained for more than one or two seconds to produce an effect—if one can be produced. A normally beating heart will always be slowed by this procedure if you actually succeed in pressing the vagus nerve. When paroxysmal tachycardia is present this is often stopped abruptly, the heart pausing

for a second or two and then resuming, somewhat irregularly at first, and then with a normal rhythm. Sometimes the right vagus sometimes the left will be most effective so it is best to press upon first one and then the other until the desired effect is obtained, trying three or four times on each side. If neither is successful, then the induction of vomiting should be tried, using ipecac or apomorphine. If this does not succeed, morphine sulphate by hypo $\frac{1}{3}$ to $\frac{1}{2}$ grain, depending upon the weight of the patient, should be used. I would caution against using this directly after apomorphine, because of the danger of respiratory depression by the summated effects of these two drugs.

Occasionally, all of these methods will fail, and when they do we must fall back upon digitalis. Start with a single dose of the tincture equal to one minim per pound of body weight, given by mouth in three or four ounces of water. If this does not slow the heart before ten hours, give 30 minims of the tincture every eight hours day and night until the heart rhythm is affected or until vomiting appears.

Whenever under this treatment a previously regular rhythm of about 150 per minute first becomes irregular and then becomes regular at exactly half of its former rate, we are probably dealing with auricular flutter.

Paroxysmal rapid heart due to auricular fibrillation should be treated with digitalis as outlined above. If, however, the attack has only been in progress for an hour or so, it is safe to use quinidine sulphate, giving 10 grains at once, and giving five grains after four hours if the first has not stopped the fibrillation. If fibrillation is still present four hours after the second dose, then I would give digitalis as just described. It is not well to continue quinidine with these patients as you would when treating a patient with long-standing fibrillation, for I feel that it is better, if the first two doses fail, to promptly slow the heart rate with digitalis and save the patient from the possibility of cardiac failure due to the long continued rapid beating.

In closing, I think it important to stress three points.

First, that adrenalin must be used with caution in the presence of a weak pulse due to cardiac failure.

Second, that if digitalis is to be given for cardiac emergencies, it must be given intravenously and in much larger doses than we are accustomed to use, or we will not obtain the full benefit that digitalis is able to give until the time of the emergency is past.

Third, I hope that you will not use these doses intravenously unless you are certain that your patient has not been taking digitalis within the two weeks preceding.

objective signs of various disturbances of the pelvic organs of a pathologic nature are reasonably well known and easy of recognition, but the signs of disturbances in these organs of a purely functional nature are much less well known and are consequently much less frequently recognized as such. It is important, therefore, to scrutinize these cases most carefully to determine the signs of deranged function so that the knowledge thereby gained may be helpful in the recognition of altered function in other patients.

In these 105 cases there were, practically speaking, only three types of functional disturbance of any importance, and I shall now take up each in turn and give the various signs by which it may be recognized. Each of these three comprised about one-third of the total. I shall call them, respectively, hyposecretion, hypersecretion and ovarian dysfunction.

By hyposecretion I mean a condition of underactivity of the cervical and uterine glands. It is most common in under-development of the uterus, especially where there is any degree of ante flexion and the cervix is small and infantile. We have previously spoken of this condition as due to mechanically poor drainage, but it seems more reasonable to consider it merely a part of the general failure of development. As I have intimated, the cervix is usually small and conical, and the os is small, sometimes literally pinhole. The fundus may be quite small or nearly normal, but there is always present the sharp ante flexion of cervix on body which is the distinctive sign of lack of normal development. The secretion obtained from within the os in a typical case is thick and jelly-like. It is so poor a medium for the passage of spermatozoa that they soon become entangled and killed in it. This condition of hyposecretion is very common in cases of lowered fertility, being found in one-third of the cases analyzed.

The second group of functional disorders, hypersecretion, is what we have formerly called chronic congestion. In these cases the cervix is distinctly reddened, and running from the os can be seen an excessive amount of secretion. In early cases this secretion may be quite normal in appearance, like white of egg, but as time goes on it obviously becomes more irritating, and erosions about the os become common. Sometimes Nabothian cysts form in the cervix and greatly enlarge it, often infection supervenes, and we see typical pictures of endocervicitis or endometritis. The fundus of the uterus is usually larger and softer than normal, and it is easy to feel the engorged blood vessels beating. You will see that the end results in cases of this kind vary greatly. What I wish to emphasize is that primarily hypersecretion is caused by congestion

and that the finding of this condition is an indication of a functional disorder. It arises chiefly from over frequent and incomplete sex stimulation and is common in early married life. If infection does not take place it is often self-limited, with a return to full fertility when the primary cause has been removed.

Very little is known accurately about the third group—comprising cases of ovarian dysfunction. Objectively, these cases may present very little of importance. Some of them show hyperacidity of the vaginal secretion—a condition probably unimportant in itself, but merely indicative of deranged function elsewhere. Since in many of these cases ovulation fails to occur and the follicles are retained, it is not infrequent to be able to feel definite enlargements of the ovaries. Similar enlargement may be caused by the presence of blood (endometrial) cysts or of retained corpora lutea. They are all indicative of improper function, and if found require operative interference to correct them and permit the function to be restored to normal. These conditions, however—retention cysts, blood cysts, retained corpora lutea, etc.—are not to be considered as causing the failure of function (ovulation). There is some more general cause which produces these changes. As yet, we are ignorant of what it is, though there is some evidence that it acts on the ovary through the sympathetic nervous system. One might, therefore, hazard a guess that it is to be found in the hyperemotionalism not infrequently exhibited by these women.

This paper has had to deal with a subject which is still little understood. For that reason it is impossible to draw clean cut conclusions, but there are certain points which seem to me so thoroughly established as to warrant emphasis. In the first place, fertility is a variable quality. The degree of fertility is indicative of the completeness and normality with which the reproductive organs are functioning. It is intimately bound up with conditions of general health and with certain phases of the physiology of the reproductive organs. Several abnormal conditions of the body as a whole—namely, anomalies of nutrition, anemia, postural defects, foci of infection and endocrine disturbances—are found frequently associated with lowered fertility. Furthermore, these cases of lowered fertility all show some evidence of alteration of function. I have described the three forms of alteration which are most commonly found, namely, hyposecretion, hypersecretion and ovarian dysfunction. Finally, let me point out again the complexity of the problems involved and urge the need for the most careful study of them before there can be any hope of a final solution.

velops from interference with the normal support of the uterus and other organs, and the consequent appearance of chronic passive congestion.

This completes our theoretic discussion of what we should expect to find as causes for lowered fertility in the woman from our knowledge of her anatomy and physiology. What actually do we find? To determine this I have analyzed the records of some 250 recent cases. From this total I have excluded all cases of male sterility and all cases where the cause of sterility was some gross pathologic lesion—such as retroversion, closed tubes, large fibroids, etc. This procedure has left 105 cases in which a diagnosis of lowered fertility could fairly be made. It will be understood that in all the cases under consideration the marriage had been childless. In some of them there was a complicating lowering of fertility of the male as well, but in all the 105 there was definite lowering of fertility of the woman. What stigmata of altered health did they present? Thirty-eight were apparently normal, but 67, or more than 63%, showed definite evidence of something wrong from the general examination alone. These 67 cases could be classified under five headings—namely, those where there were (1) marked variations from the normal nutrition, (2) definite secondary anemia, (3) serious postural defects—particularly those associated with ptosis, (4) infected tonsils, and (5) endocrine disturbances.

Let us consider these five groups in order. Of these 67 cases, 22, or practically one third, showed marked alterations in nutrition. In 5 of these cases there was marked overweight, and they should perhaps have been grouped with the 6 cases of endocrine disturbances. This has not been done because it was difficult to prove endocrine trouble and because, in several, dietary changes alone were sufficient to correct the trouble and raise the fertility to normal. It goes without saying, however, that in such cases the basal metabolism should be determined, and the sugar tolerance, etc., tested to rule out thyroid or pituitary involvement. These women often show also a secondary anemia, and it is not until this, too, is corrected that it is possible to relieve the sterility.

The remaining 17 cases of the nutritional group present by far the most common and important problem. The women were all much under the average weight, even after making every allowance for heredity. They were often anemic as well and many showed signs of ptosis and bad posture. In some there was intestinal retention. This group, it seems to me, is plainly one due to failure of normal development. It can largely be eliminated by proper care of children, particularly during adolescence. It is interesting that many of these patients showed partial failures in the growth of the pelvic organs

as well. If this class of patient is taken early enough, the trouble can usually be entirely corrected, but if they have been neglected operative interference is often necessary.

The second group is also a large one, composed as it is of 17—slightly more than one-fourth of the total. These patients all showed a definite secondary anemia. The hemoglobin was less than 80 % in all—occasionally a little less than 70 %. These slight anemias may not seem to be of great importance, but I can only call your attention to the fact that many pregnancies follow their correction and that subjectively the difference of only 10 % in the hemoglobin may make all the difference between being half well and in full health. In this connection it is important to remember the monthly loss of blood to which the woman is constantly subjected.

Our third group consists of 14 cases with postural defects. It also is an important one, embracing more than one-fifth of the total. Practically all these women were, in addition, suffering from ptosis. These two allied conditions usually result from bad habits and poor development in adolescence. The mechanism by which they cause a lowering in fertility seems to be through their general lowering of constitutional vigor and through the tendency of the weight of the intestines pressing upon the pelvic organs to cause congestion in the latter.

The fourth group is made up of 8 cases, all of which showed chronic infection of the tonsils. It is possible that the action of infected tonsils in lowering fertility is entirely a secondary one, through the anemia which is so frequent an accompaniment. It is certain, however, that a very appreciable number of pregnancies follow the removal of infected tonsils where nothing else is done. It is hardly necessary to add that other foci of infection may be of equal importance.

The last group contains 6 cases where the evidence of endocrine disturbance—at least as a contributing factor in the lowering of fertility—seemed fairly strong. Most of these were apparently of thyroid—one or two of pituitary—origin. They usually were associated with menstrual disturbances, and the suggestion is strong from this fact, and from the finding of actual changes in the ovaries, that there may be some definite relationship between the two conditions. At this time, our knowledge is so far from complete that it is hardly wise to generalize as to either etiology or treatment from so few cases.

We have seen that in 67 out of 105 patients with lowered fertility some definite abnormality was found on *general* examination. All of the 105 patients showed alterations, chiefly of a functional nature, on *local* examination also. You will remember that this group had been selected from 250 by eliminating all cases with obvious pathologic lesions. Now it so happens that the

objective signs of various disturbances of the pelvic organs of a pathologic nature are reasonably well known and easy of recognition, but the signs of disturbances in these organs of a purely functional nature are much less well known and are consequently much less frequently recognized as such. It is important, therefore, to scrutinize these cases most carefully to determine the signs of deranged function so that the knowledge thereby gained may be helpful in the recognition of altered function in other patients.

In these 105 cases there were, practically speaking, only three types of functional disturbance of any importance, and I shall now take up each in turn and give the various signs by which it may be recognized. Each of these three comprised about one-third of the total. I shall call them, respectively, hyposecretion, hypersecretion and ovarian dysfunction.

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18 DIABETES DUE TO DISEASES IN THE LIVER?

By L WINFIELD KOHN, M.D

NEW YORK CITY

DURING the past three years, three patients after thorough study of the clinical history, physical examination, gastric and duodeno-biliary investigation and X-ray observation indicated that they had bile tract disease. It was after an interval of a year or more that diabetes developed. These patients evidenced considerable improvement of both the alimentary disorder and diabetes following surgery in one case and duodeno-biliary drainage in the other two.

The purpose of the report is to stimulate the profession to regard with favor the view, that many cases of diabetes owe their origin to disease in the liver, which itself, may be primary or secondary in nature. At the same time, I wish to state that I am not unaware that the pancreas seems to play a very important part in diabetic states, and that it is my belief that the liver is more concerned in primarily inducing diabetes than is the pancreas. This is not an entirely new point of view. Others have in the past suggested disturbances in the liver, muscle, kidneys, nervous system and endocrine glands as a cause of glycosuria, but the importance of the part enacted by the liver in the creation of the diabetic state has, in my opinion, not been sufficiently stressed.

CLINICO-PATHOLOGICAL CONSIDERATIONS

Much medical literature has in the past aimed to associate diabetes with pancreatitis and pancreatitis with diseases in other organs, particularly the gall bladder and biliary ducts. It seems that we have so definitely fixed our views regarding the relationship of pancreatic disease to diabetes that it is not improbable that the important bearing of disease or disturbances in other organs, particularly the liver, is overlooked. Lancereaux, Opie, Robson, Kehr, Mayo, Lichty, Barron and others have all stressed the association of bile tract disease with pancreatitis and that of pancreatitis with diabetes. More recently Peterman and Graham, Barber Bancroft and Heyd have emphasized the association of hepatitis with diseases in the biliary tract and only lately Heyd has demonstrated this liver change in many cases of chronic appendicitis. May we not move a step forward and look to the liver in which so much response and reactivity with respect to any stimulus throughout the body takes place as the organ responsible for the creation of the diabetic state? It might be well, rather than immediately to associate gall bladder or gall tract disease with pancreatitis, to consider the question of liver changes, then

later look to the pancreas for the part it plays in diabetes.

We may now feel certain that the liver is usually affected in diseases of the bile tract. It would seem that the question of the duration of the bile tract disease might have some influence in producing the disorder in the liver, as one might infer from the points stressed by Alvarez in his reference to the occurrence of biliary disease in childhood. He believes that biliary disease in adults often has its beginning in childhood, but does not manifest itself until later life. The factor of infection of the liver either thru the blood stream or lymphatics from the bile tract, or from some other focus as a source of infection, has been considered for a long time, as has the question of disturbances in metabolism. Interferences in the secretion of bile by the liver cells or in its excretion thru the ducts may also account for the creation of hepatitis, thru influences either chemical, i.e., retention of the bile acids and pigment, or mechanical, i.e. static pressure. In consequence of hepatitis, not only is there the likelihood of the destruction of the parenchyme, but it is also very probable that in many instances the liver cells lose their power of holding accumulated glycogen and this may very readily become a factor in the production of diabetes.

The predominating opinion at the present time regarding diabetes, is that it is due to a pathologic involvement of the islets of Langerhans in the pancreas. It is believed, that as a result, there occurs a deficiency in the internal secretion, to which is attributed the inability of the organism to utilize sugar. There is still some speculation as to whether the pancreatic disturbance is organic or functional in character. The exact pathology is indefinite, for despite the fact that many cases of diabetes have not shown a true anatomical change in the pancreas, the individuals had, from all other indications, a true diabetes. On the other hand, many cases with well marked pathology in the pancreas at autopsy, evidenced no diabetes during life. Falta does not look to pancreatic disturbance alone as the cause of diabetes, but regards it rather as a disease of the whole apparatus regulating sugar metabolism, which includes the nervous centers in the medulla and brain stem, connecting paths, pancreas and chromaffin tissue. Langdon Brown regards diabetes as a sign of exaggerated metabolism, evoked thru the sympathetic and associated endocrine glands, in relation to food material, etc. Allen contends that "no proof of direct participation of any other organ in the

etiology has been determined' and looks forcibly to the pancreas for the cause of this disease

PHYSIOLOGICAL CONSIDERATIONS

Regardless of the exact nature of the cause of diabetes, one outstanding characteristic is the defection of the organism in the utilization of carbohydrate. Carbohydrate as we know, is ordinarily stored in the body as glycogen and serves the demands made upon the organism for the production of energy. As the need asserts itself, the glycogen releases itself from its storehouse, and thru oxidation meets the demands of the metabolism.

The liver and the large muscles of the body seem to be the chief points for the storage of glycogen. The muscles because of their frequent use and consequent oxidation in their cells probably require the localization of glycogen in them, so that they may without hindrance meet demands. It is also quite possible that the glycogen stored in these muscles may have originally resided in the liver, from whence it had been transported in altered form to the muscles to fill the depleted supply. The liver is most likely the main storehouse for glycogen to which the general oxidative processes of the body look for fuel supply.

Most physiologists of today regard the non-combustion of sugar as the cause of hyperglycemia in true diabetes, and the reduction of the sugar holding capacity of the tissues of the liver as the cause of the hyperglycemia in pseudo-diabetes, such as, Bernard's pique, alimentary glycemia and phlorhizin diabetes. It is very possible that both these factors play a part in true diabetes and we can, at least theoretically satisfy our minds that the liver disorder may in a great measure be associated with such changes. Disease of the liver cells, one can readily understand, may disturb the glycogen storage capacity of each cell and one can also appreciate now glycogenase, a diastatic ferment found in the liver, blood and lymph, may be influenced by disease of the liver itself.

Araki found lactic acid and glucose in the urine of animals, the oxygen carrying capacity of whose blood had been diminished thru the respiration of CO, (asphyxia). In this case might we not have found the CO lesion in the liver, and this finding the result of its effect on the liver substance. Macleod found that if the liver were excluded from the circulation by means of an Eck fistula in the dog, no hyperglycemia followed asphyxiation. From this Macleod concluded that the acid carried in the asphyxial blood produced glycogenolysis in the liver cells. These two experiments certainly seem to point to the liver as an important factor in the production of hyperglycemia. Elias found that the intravenous injections of acids into dogs

produced a discharge of glycogen by the liver and a resulting hyperglycemia. Lusk found that the ingestion of 75 gms of glucose by a phlorhizinized dog in no way affects the respiratory quotient, which indicates that the animal has lost the power of oxidizing glucose, but the states that this loss in oxidative power does not in all probability occur on the first day of the administration of phlorhizin and may be due to acidosis.

Verzar has reported that the dog does not completely lose its power to oxidize glucose until the fourth day after pancreatectomy. This also is probably due to the increased acidosis. Lusk states that traces of acid prevent the oxidation of glucose and it is believed that this factor makes the glucose molecule invulnerable and non-destructible in diabetes. Murlin has obtained results, which indicate that if a depancreatized dog be given alkali he is able to oxidize some glucose. This seems to support the assumption that acidosis is strongly concerned in diabetes production. From the foregoing, it would seem that it is not quite proper for us to regard diabetes as a disease mainly of the pancreas. To look upon the liver and the blood, a fluid which is such great quantity and so intimately is concerned with it in physiologic function, as the more important tissues in which disorder has arisen might eventually reward us in our search for the cause and cure of diabetes. There is no doubt that the pancreas plays an important role in carbohydrate metabolism, but it is not necessarily the chief role. The pancreatic disturbances may be secondary and have developed only after manifest primary disease has occurred in the liver or the blood. The same may be said of the influence brought to bear by the thyroid gland and chromaffin tissues, or disturbances in certain portions of the nervous system proper, as in the corpus striatum of the brain or in some portion of the vegetative nervous system. The fact that the liver is the great detoxicating organ of the body, that it is concerned in practically every reaction that metabolically takes place in the human being, that it has such an important part in glycolysis and sugar storage, makes me feel that more attention should be given to its consideration as a factor in the production of diabetes.

DISCUSSION

Why is it, that in a phlorhizinized animal the oxidative power in all probability is not lost, as stated by Lusk, until after the first day? Why is it lost on the second day or thereafter? Is this oxidative ability lost because of the development of acidosis or is it due to the fact that the power of oxidation lies inherent in the liver or within some portion of the vast circulatory system within the liver and that as soon as the gly-

cogen supply has left the liver in large quantity, the opportunity for oxidation is lessened? In other words has the concentration of the glycogen in the liver been so reduced, that the furnaces within this organ or its vascular spaces have been deprived of their fuel to the extent that the fire has abated? Is not the liver the station where the potential factor for the ignition of oxidation resides? In these phlorhizinized animals the pancreatic islets have evidently not been destroyed, and the pancreatic hormone has in all probability not been decidedly removed. For the same reason as suggested above for the existence of hyperglycemia after giving glucose to the phlorhizinized dog, we might attribute the condition known as starvation diabetes. It was Hotmeister who discovered that the fasting organism is more susceptible to alimentary glycosuria than is the well-fed organism. If the pancreatic hormone controls the power of oxidation, why should the experiment of Raulston and Woodyatt, in which an intravenous transfusion of blood from a normal man into a diabetic individual aggravated all symptoms in the latter, rather than increased the sugar tolerance, as one would expect from the presence of the pancreatic hormone in the blood. The aggravation of the symptoms might have been due to some factor other than those intimately concerned in sugar metabolism.

In Verzar's experiment, why is it that the dog does not completely lose its power to oxidize glucose until the fourth day after pancreatectomy? Would this continuance of this oxidative power four days be attributed to the continuance of pancreatic hormone in the blood, or would it be due to the fact that acidosis had not yet adequately developed? Would it not seem more logical to regard the pancreatic islet secretion as merely the regulator of sugar metabolism, and that depending upon the disruption of the regulation, there will ensue a breakage in sugar storage function within the liver? Then in consequence of the break will follow an abatement of oxidation within the liver or the hepatic vascular areas. When we regard the diseased islets of the pancreas as the primary cause of diabetes, are we not confusing cause with effect? If we are to solve this puzzle, would it not be wiser and more fruitful to start the other way about, and look to the hepato-vascular system for the basic primary cause.

SUMMARY

1—Some special portions of the liver or of its vascular areas are probably affected and result in the production of diabetes. These special areas are probably concerned most intimately in glycogen storage function, as well as in the oxidative influence over sugar during metabolism.

2—It is not necessary to deny that the pancreas is concerned in carbohydrate metabolism.

It probably, to a degree and in a definite manner, aids in the regulation of this metabolism. The connection of the liver and pancreatic islets in carbohydrate metabolism is without doubt closely linked. Disturbance in one organ probably affects the other, but the disturbance does not necessarily have its origin in the islets. Should the disease first manifest itself in the pancreatic islets, which we assume are the regulators of sugar metabolism, then we might readily appreciate how secondary liver disease or dysfunction may rapidly arise. On the other hand, if the liver areas are first affected, we might also conceive how the regulating control of the pancreas would be lost.

3—It is not fair to assume that every diabetes is necessarily preceded or even associated with a pancreatitis.

4—It is exceedingly difficult to regard every hyperglycemia and glycosuria in their proper light and say that this case belongs to the group of true diabetes while another belongs to a group non-pancreatic in origin.

5—Because the pancreas is involved, it is hardly fair to assume that the disease had its origin in the pancreas. It is possible that the disease had its superinducing origin in some other focus in the body.

6—We must not ignore the fact that many diseases of the biliary tract and the liver are followed by glycemia or a lowered sugar tolerance. To say that these cases are not truly diabetic may also be an erroneous assumption, despite the fact that this form of the disease manifests itself for the time in a milder form than the condition which we recognize as true diabetes.

7—Diabetes may be a more complicated disease than many of us think, especially in its production.

8—The liver is concerned in the reaction of practically every disease of the organism. Certain workers have shown that it is affected in diseases involving the biliary tract, and recently it has been connected with the disease of the appendix. It would not be unfair to conclude that disease of any visceral organ may be associated with liver involvement. The influences of toxic states or poisons on the liver is well known.

9—Because the liver is involved in many diseases of the organism and does not in every instance result in the production of diabetes, does not imply that the liver is not concerned in the production of diabetes. It is probable that the liver does invite the development of diabetes only when it is affected in a certain determinate manner.

10—It is my present belief that the recognition of this particular manner of liver involvement holds the key to the cause and cure of diabetes.

A PSYCHONEUROSIS CASE REPORT

By WILLIAM B TERHUNE, M D, and AUSTEN F RIGGS, M D,

STOCKBRIDGE, MASSACHUSETTS

THIS is a case report of a patient afflicted with a psychoneurosis. Such a condition is not rare, the treatment is not unique, and the result obtained was to be expected. This report is submitted in order that certain methods of treating the psychoneuroses which are now being employed with a considerable degree of success may be placed before the medical profession in concrete form.

Case History—A man of twenty-nine years, unmarried, of sound antecedents, complained of having what he considered a very queer and incapacitating illness, one which he found difficult to describe. He stated that, having contracted a Neisserian infection a year ago, he had become apprehensive about his health. On Labor Day he happened to pass the office of a good genitourinary specialist and, having nothing else to do, thought it might be just as wise if he stopped in to ascertain what his condition was. The doctor gave him a thorough examination lasting some two hours and assured him that he was perfectly well, that there was no evidence of Neisserian infection, nor its sequelae.

The patient left the physician's office and a few minutes later, while walking down the street, he began to feel bad, felt rather faint, mouth dry, knees a little "wobbly," heart pounding, head "woozy," and he was also somewhat nauseated, but did not vomit. He was considerably frightened by these sensations, and on entering his office he found that he was pale, which frightened him still more. His friends in the office sent him into the hospital where he waited for several hours before the doctor came and told him he was all right, but did not attempt to explain his illness. He went home and every time he thought of this upset and wondered what it was, he would again feel rather badly, uncomfortable, and apprehensive. When he returned to his office the next day, expecting to be perfectly well, his uncomfortable feelings swept over him again and were so acute that he went home. He went to bed and while there with nothing to do, he noticed that he was holding his head in his hands and, remembering a friend who after losing his mind held his head in his hands, he began to wonder if he were losing his mind also. He tried to go back to work on numerous occasions, but the unpleasant sensations would always sweep over him, and he would have to quit. He came to New York on business after three weeks away from his job. There one of his friends, having recovered from a similar illness, described some of his own psychoneurotic symptoms, following which the patient had a tremendous recurrence of his

unpleasant sensations and fears, together with tachycardia, dryness of the mouth, increased perspiration, and a feeling of weakness. He was then seen by Dr. Frederick Tilney who referred him to us.

When this patient was first seen, he seemed rather a happy-go-lucky, energetic, intelligent individual, with a stable emotional make-up. He didn't make much of his illness. In fact, one had to draw him out in regard to what had happened to him. This was probably due to the fact that in the first place he was afraid that if he talked about it, his symptoms would recur, and secondly, he was rather ashamed of having such a condition.

The treatment consisted of getting him away from his old environment where such stimuli as aroused his conditioned psychic reflexes might be avoided until he had been trained to crystallize these responses into habits, and a sufficient length of time had passed to re-condition his reactions. Second, he was given a schedule which kept him busy all day on a budgeted regime of activities. Third, he was gone over very carefully from a physical standpoint and instead of telling him he was perfectly all right, a resume of his condition was given him, system by system, pointing out to him his complete physical and mental adequacy. A factor, of course, was the confidence he gradually acquired in the physician's judgment and a definite amount of friendship which arose on the basis of that confidence. This was, of course, an incidental occurrence rather than a therapeutic procedure.

As soon as the patient felt at home and was in a receptive mood, an effort was made to enlighten him in regard to psychoneurotic reactions in general, first explaining to him some of the principles of adaptation, the nature of the nervous system as the organ of adaptation, the part that the emotions play in one's life, mentioning the various physical concomitants of emotions and the discussion of the rather usual forms of mal-adjustment.

With this as a basis, he was led to more or less find for himself the cause of his difficulties. *First*, that he was a sensitive, intelligent, and emotionally stable individual and that such an illness as he had suffered was compatible with these characteristics, *second*, that following his Neisserian infection he had experienced a very real apprehension as to its consequences, plus shame that he should have had such an infection, plus disgust, *third*, with such an emotional background he went through a most intricate physical examination of serious moment to him during which his sympathetic nervous system was

already very sensitive to even small stimuli and was probably upset by the passing of sounds, massage of the prostate, and use of local anesthetics, *fourth*, that the physical sensations which seemed so queer and inexplicable to him were natural under the circumstances, that they were the physical concomitants of the emotions he had experienced plus other sympathetic phenomena resulting from the procedures and drugs employed in the examination, *fifth*, that the seriousness of his condition had been fixed in his mind by the solicitude of his friends, *sixth*, that reflexes formed by association with office and work at the time of his primary attack led to recurrences of his symptoms whenever he approached work, *seventh*, that naturally all of this seemed very queer to him, that, lacking information, he couldn't really understand it. Like all human beings, he had a dread of insanity, insanity likewise seemed queer to him and when he found himself feeling queer, it was only natural that his illness, by virtue of

its strangeness, should at once be associated with the queerest thing he knew of namely, insanity.

The patient was finally able to grin and say, "Well, Doctor, I guess I find the answer to all this. In the first place, I can understand that I am physically and mentally sound. In the second place, I can understand that having aroused these mechanisms in my body, they are not going to subside at once, it is up to me to accept them, smile at them, treat them in a more friendly fashion, and my experience already has been that if I so treat them, I can put my attention on other things which results usually in the symptoms quickly disappearing."

As a result of this explanation and attitude of the patient, he can no longer be described as having a psychoneurosis, that is to say, he no longer has an exaggerated response to what is in all probability a perfectly natural reaction. As a matter of fact, he is no longer having any more trouble either physically or mentally, and has been discharged as cured.

PRESENT DAY CONSIDERATIONS OF BRAIN TUMORS*

By GILBERT HORRAX, M.D.

BOSTON, MASS.

BRAIN tumors are of much more frequent occurrence than is commonly supposed.

They are always to be considered of surgical significance, first, because complete or partial removal is often possible, and second, because if removal is not feasible, palliative operative procedures are almost always necessary to preserve vision or to relieve the discomforts arising from increased intracranial pressure. The individual types of tumor may be considered in the order of their frequency, the figures given being based on the analysis of a thousand verified tumors from the clinic of Dr. Harvey Cushing. The surgical treatment will be taken up with each group.

1. *Gliomata*. These tumors arise from cells of the brain tissue proper and are the most frequent of all intracranial new growths, representing about 40% of the total. They occur at any age and in any part of the cerebrum, cerebellum, pons or midbrain. In general from a clinical standpoint, three main types can be recognized, namely, those which are partly or largely cystic, those which are more or less encapsulated, and those which infiltrate the surrounding tissue without a distinguishable border.

Gliomata are on the whole the most rapid in growth of all brain tumors, although this is not true of all types. They give rise to the usual pressure symptoms of headache, vomiting and

mental dullness, to which there is added in most instances the objective finding of choked disks. In some cases, however, there may be pressure symptoms, even advancing to coma, with normal fundi. Focal signs and symptoms depend upon the situation of the growth. Inasmuch as they are more often subcortical than on the surface, they do not tend to cause convulsions as frequently as do tumors of some other types. A small percentage of gliomata have areas of calcification within them and their situation can then be determined accurately by stereoscopic X-rays of the skull. When no calcification exists the X-ray shows merely the convolutional atrophy and increased vascularity due to intracranial pressure.

Treatment. If the situation of the tumor can be determined, the area in question should be explored either by an osteoplastic flap in case of the cerebrum or by a suboccipital procedure if cerebellar. An area of decompression should always be left. If the tumor is large and infiltrating it is probably best to leave it alone and subject the area to deep X-ray therapy. Some types of glioma respond extremely well to this treatment the patients being relieved of all symptoms sometimes for several years. If the growth is partially or rarely, wholly encapsulated an attempt at enucleation should be made. Even if all of the tumor cannot be extirpated, the patient can be given X-ray therapy with the probability of a length of time free from symp-

* Read before the Medical Society of the County of Oneida, at Utica May 19, 1925.

toms varying directly with the relative amount of growth removed. A wide margin can be given to tumors of this sort which occur in silent areas of the brain. When a glioma is found to be largely cystic, if not too deeply below the surface, as determined by the insertion of a blunt, hollow needle, a transcortical incision is made down to the cyst, its contents evacuated, and its lining fixed with Zenker's solution or 10% formalin. Sometimes a small nodule of glioma will be found protruding into the cyst, and this nodule often may be excised completely. This form of glioma is particularly favorable for surgical treatment, many patients being permanently cured, and other entirely relieved for five, ten or even twenty years.

In some instances no surface tumor will be disclosed nor will there be obtained any fluid by puncture. Presumptive evidence of a subcortical tumor in such cases is shown by flattening of the surface convolutions, or dislocation of certain structures, such as the Sylvian vessels from their normal position. If bleeding follows upon the withdrawal of an exploring hollow needle, this also tends to favor the presence of an underlying glioma, as normal brain tissue may be punctured in this way ordinarily without the slightest bleeding. These patients should be given the benefit of a decompression for the relief of headache and to preserve vision.

Gliomas of the pons and midbrain cannot be reached by any operative procedures. Patients with tumors in these situations should be given a decompression and subjected to deep X-ray therapy directed at the site of the lesion. Such measures often prolong useful life for a very considerable period.

2 Pituitary Tumors This group consists in two distinct types, the adenomas which represent 20%, and the suprasellar cysts, which constitute about 5% of all intracranial new growths.

The adenomas are strictly speaking, the only true pituitary tumors, and are really little more than an overgrowth or hyperplasia of the gland. They distend the pituitary capsule and thus cause gradual erosion and enlargement of the sella turcica. They may occur at almost any time of life, but are most frequent between the ages of 15 and 40. Pituitary adenomas should be considered as acting to this gland in a way similar to the way in which adenomas affect the thyroid. This manifests itself in waves of activity which are superseded by periods of quiescence, the gland or tumor of the gland becoming a little larger after each active period, but its normal secretion lessened. Such changes going on in the pituitary produce certain clinical pictures which we can recognize, the differences in secretory activity causing definite constitutional changes in the individual, and the increase in size of the gland exerting pressure upon im-

portant structures in its neighborhood. The clinical types are now fairly similar. Overactivity of the pituitary in adult life results in the skeletal changes which we call acromegaly, while hyperfunction before puberty cause true gigantism. If underactivity of the gland has come on before puberty, the picture is that of obesity associated with infantile genitalia, the "syndrome adiposo-genitalis" or Fröhlich's syndrome. After puberty there is often, but not always, some tendency to obesity, with feminine distribution of hairs in the male and amenorrhoea in the female. To all the above there is added usually some degree of drowsiness, an increased tolerance to carbohydrates, and a somewhat lowered basal metabolism. In addition to these forms, there are acromegalics, who although retaining the bony evidences of a previous glandular overactivity, have gone on to the stage of pituitary underfunction, and therefore show the corresponding constitutional changes just cited.

Important as are these constitutional changes, however, the principal, if not the only surgical manifestation of the pituitary adenomas, is due to the pressure they exert upon the optic nerves or chiasm. This pressure produces gradual loss of eyesight, which as a rule affects first the temporal halves of both fields of vision giving the typical bitemporal hemianopsia, although if the growth presses upon one optic tract just posterior to the chiasm, an homonymous hemianopsia will result. In the earlier stages these hemianopsias are not complete, but as the pressure increases, there is found every gradation from a slight notching of one or both upper quadrants going on to complete bitemporal loss, or even total blindness.

The diagnosis of a pituitary adenoma, as a rule, is not difficult. The patient seeks medical aid most often because of failing vision, and examination of the fundus oculi will reveal primary optic atrophy of greater or less degree in one or both eyes. The perimeter next shows a partial or complete hemianopsia, usually bitemporal, but sometimes homonymous in type, and X-rays of the skull will give evidence of at least some enlargement of the sella, which in most cases is outspoken. Finally the glandular manifestations may be numerous and typical, or they may be altogether absent, according to how greatly the actual pituitary secretion has been affected.

In regard to treatment, partial removal of the soft adenomatous struma from within the sella is the procedure of choice, and in the hands of surgeons familiar with intracranial conditions is not particularly hazardous. Deep X-ray therapy may be tried under careful supervision, but there are risks of sudden and dangerous upsets from this form of therapy.

The supra-sellar or pharyngeal-pouch cysts are seen most often in children below the age

of puberty, the most typical clinical picture being that of an undersized individual with some degree of adiposity and infantile genitalia. Any or all of the previously mentioned symptoms of pituitary underfunction may be present and in addition a certain percentage of cases in this group show a marked diabetes insipidus. Often these little people are, for their years, exceedingly advanced mentally, this feature being quite striking when present.

The diagnosis in typical cases is simple, as added to the above there is found usually optic atrophy and some form of hemianopsia, while in a large proportion of cases the X-ray will reveal a deformed or eroded sella. In many instances these cysts contain calcified material which shows in the plate as small opaque areas above the sella. On the other hand, these patients may show such marked signs of increased intracranial pressure, because of the large size of their cysts, that they may have choked disks instead of primary atrophy, and false localizing symptoms, particularly apt to be cerebellar in type, may lead to a faulty diagnosis or even an operation directed at the wrong site.

Treatment of the supra-sellar cysts is entirely surgical, the approach being by an osteoplastic flap over the frontal area with retraction of the frontal lobe to expose the region of the optic chiasm. In some instances the cysts can gradually be worked free of their attachments and completely extirpated, but the operative risks are considerably greater than in the adenoma group. In other cases the cystic fluid can be evacuated and the cyst wall partially excised. X-ray therapy has no effect upon cysts of this character.

3 *Meningiomas (endotheliomas)* These tumors represent about 12% of all intracranial growths in Dr. Cushing's series. They are the familiar, irregularly round, somewhat "potato-like," fairly firm, encapsulated tumors which have been described under various names such as endotheliomas, sarcomas, fibro-sarcomas, etc., owing to the fact that certain cell elements predominate in some, and different ones in others. They are all essentially similar, however, in that they arise from the meninges, are non-malignant, and are completely removable surgically. They do not in any sense invade the cerebral substance but as they grow, the brain is pushed away and depressed by them. Although their form is usually roughly spherical, they may assume almost any shape, some having an "hours-glass" appearance, while others are quite flat and not more than one or two centimeters in thickness.

The diagnosis of a cerebral meningioma may often be made with certainty, but at times none of their pathognomonic evidences are apparent. Unless they are situated in a "silent area" they give rise to the ordinary localizing signs char-

acteristics of the region involved. Owing to their slow growth these tumors should be suspected when the clinical history of intracranial disorder is of long duration—sometimes several years. Inasmuch as they always press upon the cortex at some point, they are apt to cause convulsions more often than the gliomas. Finally, in a large proportion of cases they cause characteristic bony changes in the skull adjacent to them and can be diagnosed easily by the X-ray. This change may take the form of an overgrowth of bone, or the tumor itself may invade the bone and even be present in the scalp.

In addition to these general considerations, meningiomas in certain situations present features which may be said to be almost characteristic. In the Rolandic area, usually growing from the superior longitudinal sinus, they produce true Jacksonian fits, the seizure in most instances starting with twitching of the opposite foot and having a typical "march" up the leg and then into the body, arm and often the face as well. Such seizures occur as a rule with no loss of consciousness, and with gradually increasing weakness of the side involved.

Another not infrequent location for meningiomas is on the floor of the anterior fossa, in the region of the olfactory groove, often on one side only, but sometimes growing across the median line. Such tumors present every characteristic clinical picture. In addition to general pressure symptoms, which may or may not obtain, there are signs of mental disturbance and deterioration. Finally, as localizing features, if the tumor is on one side only, there will be primary optic atrophy and anosmia on that side, and usually a choked disk and no disturbance of smell on the other. If the growth has become bilateral, there will be anosmia on both sides, while the eye-grounds may show choking of both disks, or a combination of choking superimposed on an earlier atrophy.

One more situation for meningiomas should be mentioned, namely, the post-orbital or anterior temporal region. Here the tumors are almost always of the flat type, but they cause great local bony thickening, and a characteristic unilateral exophthalmos.

The treatment of meningiomas is surgical removal if the localization can be accomplished. Occasionally the situation will be such that an approach is almost impossible, but the vast majority can be enucleated after a carefully planned osteoplastic resection. The skull in patients having meningiomas is always more vascular than normal, this feature being extreme in not a few, so that often a two-stage operation is either necessary or advisable. This great increase in vascularity of the bone is a further help in diagnosis as the deepened channels show well in the X-ray.

The prognosis for meningiomas is excellent,

patients making complete recoveries if no damage is done to the surrounding brain during their removal, provided that the pressure from their presence has not been so long continued that the optic nerves have become damaged or paralyzed occurred. Sometimes removal may be incomplete, the growth then recurring locally, but always benign. In patients who have had Jacksonian attacks before operation, these seizures may continue for a considerable time even after the tumor has been completely removed, but they are apt to grow less frequent.

4 *Neurinomas or acoustic tumors* form 90% of the total in this series. They are the typical cerebello-pontile angle tumors, present a chronology of clinical signs and symptoms which is almost unmistakable, and should be diagnosed more accurately perhaps than any other type of intracranial new growth. They are usually firm, encapsulated tumors, taking their origin from the sheath of the acoustic nerve, and microscopically resemble neurofibromas because of their large content of fibrous tissue. Sometimes they become softened and cystic.

In every case the clinical story begins with tinnitus on the affected side, followed or accompanied by a gradually increasing deafness on that side. These two symptoms may be followed immediately by the other manifestations about to be mentioned or they may occur years before and be entirely dissociated by the patient from his later symptoms. After a longer or shorter period, there occurs evidence of pressure upon other cranial nerves in the neighborhood, most frequently the fifth and the seventh, as shown by numbness, twitching or weakness of the face. If the growth extends downward toward the medulla the 9th, 10th, and 11th nerves may be irritated or pressed upon. Subsequent to the involvement of various cranial nerves the tumor begins to press inward constricting the aqueduct, and also to press upon the cerebellum. These circumstances give rise to general pressure symptoms from internal hydrocephalus as well as signs of cerebellar involvement, the latter most often noticed by the patient as staggering. Examination reveals objective evidence of the cranial nerve palsies, nystagmus, ataxia and other cerebellar features, while choked disks are usual, and certain if the the growth has produced backing up of fluid in the cerebral ventricles.

Acoustic tumors are approached by opening the skull widely over the cerebellum, incising the dura and retracting the cerebellar hemisphere on the side of the lesion. Occasionally the growth can be removed entirely but this, as a rule, is far too hazardous. Sometimes, too, the tumor is so vascular that only a few fragments of it can be taken away without grave risk of hemorrhage. In most cases the procedure of choice

is to split the capsule and then scoop out the mass from the inside, making the enucleation by this means as complete as circumstances allow. As these tumors are invariably slow growing, such an operation usually relieves pressure for many years, although there may still remain some degree of unsteadiness and difficulty in walking.

5 *Infectious granulomata (tuberculomas and gummas)* occur very infrequently in the brain in comparison to tumors, and represent only 4% of the cases in the series. They give the same type of pressure and localizing signs as do new growths, but may be suspected when there is an antecedent history of pulmonary tuberculosis or active syphilis as the case may be. Tuberculomas are not amenable to surgical treatment, the vast majority of patients with this type of lesion dying from tuberculous meningitis within one year after extirpation. Gummas of the brain should be removed if encountered at operation, but if merely suspected they will yield much better to antiluetic treatment if a preliminary decompression is performed. A decompression in fact may save vision while active treatment is being undertaken.

Under the heading "miscellaneous and metastatic" are grouped the remaining 10% of intracranial tumors. The metastatic are chiefly carcinomata and usually in women, sometimes occurring many years after a breast amputation. These patients often require a palliative decompression to relieve discomforts and preserve vision during the remaining life of the individual.

The miscellaneous tumors include such rare forms as the true cholesteatomata or pearly tumors, which are capable of complete removal, and other bizarre growths such as papillomata of the choroid plexus, angiomas and certain tumors which cannot be classified.

In conclusion two or three points should be re-emphasized. Brain tumors are by no means infrequent in occurrence, and their early recognition is just as important as the early recognition of any other serious malady. By this means patients may be saved from severe headaches and the discomforts of protracted vomiting, while in most instances the operative risk is lessened when the lesion has not advanced to the stage in which pressure symptoms are marked. Above all, in patients who have choked disks a brain tumor is by far the most frequent etiological factor and should be suspected at once rather than finally recognized after procrastinating with various forms of futile treatment in the vain hope that some less serious condition is at hand. Only in this way can valuable time be saved and the patient's vision preserved from serious damage or utter ruin.

THE VALUE OF BLOOD CHEMISTRY STUDIES TO THE SURGEON

By ARTHUR M. DICKINSON, M.D., F.A.C.S.,

ALBANY, N. Y.

WITHIN the last decade, the so-called laboratory side of medicine has developed at a marvelous pace and has brought to the aid of the physician much valuable information. The effect of this advance has been most noticeable in the field of medicine, perhaps less so in the surgical field, for the reason that medical men have kept more in touch with these advances. However the study of the chemistry of the blood in health and disease has added greatly to the diagnostic and therapeutic accomplishments of the surgeon. Indeed the modern surgeon owes a debt of gratitude to the patient laboratory investigators who have been responsible for these studies. These laboratory workers are slowly but surely making of medicine a more exact science.

In the past the question of surgical intervention was decided to a large extent by clinical judgment. The necessity for operation, the grading of the operative treatment, the selection of the safest time for operation, the choosing of the anesthetic and the pre and post-operative treatment were all based on this same factor. If the experience of the surgeon had been large and his memory had treasured up the lessons learned in the past, then his clinical judgment was good. On the other hand if opposite conditions prevailed then results were not so good. To appreciate these facts, one only has to recall the many ill-advised operations upon diabetics or nephritics or the high mortality rate of intestinal obstruction. Now the laboratory brings to our clinical judgment much valuable aid and conditions are markedly changed. Definite diagnoses are arrived at more early in the course of the disease, operations are graded to the strength of the patient, more intelligent treatment before and after operations is possible, all of which contribute to the safety of modern surgery. In other words these laboratory studies enable the surgeon to salvage from the scrap heap of disease many individuals who in years past were hopeless derelicts.

It might not be amiss to state at this time the so called normal values of blood chemistry studies in health.

Sugar	90-120 mg	Total N	P	N	25-30mg
Creatinin	1-2 mg	Chlorides			560-650mg
Uric acid	2-3 mg				
Urea N	15 mg	Plasma carbon dioxide			56-65

One of the major advantages which study of the blood chemistry brings to the surgeon, is reliable information with regard to renal function. In diseases of the kidneys we commonly

have nitrogen retention due to the impaired excretory function. The amount of retention is an indication of the degree of impairment of renal function. Furthermore it is an index of the decreasing reserve of renal function which must be properly evaluated before extra work is thrown upon the already diseased organs. Various methods of determining kidney function have been worked out. The quantitative analysis of a 24 hour specimen of the urine yielded valuable information. Renal function tests such as the phenol test checked the excretory activity of the kidneys. The Mosenthal test gives still further information. However blood examinations yield information which far surpasses in accuracy and value that which can be obtained by any of these methods. Studies of the nitrogen retention of the blood enable the surgeon to judge the risk of operation, to estimate the reserve function of the kidneys, to limit the operation to the strength of the patient, to choose the best time for operation, to direct intelligent treatment and select the safest anesthetic. An outstanding example of the use and value of careful blood chemistry studies is found in the case with prostatic enlargement. How carefully the surgeon works out the risk in this particular field is well known. He insists upon pre-operative treatment based upon blood studies, he operates when he has evidence of satisfactory elimination of nitrogenous excretions of the kidneys, the extent of operation is limited to the safe side by these same blood chemistry studies and post-operative treatment or secondary operation is likewise guided by it.

In the diabetic case blood chemistry studies are of paramount importance. Primarily we are enabled to affirm or reject the diagnosis of diabetes. This in itself means much. Until the advent of blood sugar determinations, the diagnosis of diabetes mellitus was based upon urinary examination and treatment had to be guided by the same procedure. We know that glycosuria does not always mean diabetes, for there are certain individuals who have a low renal threshold which account for the glycosuria. On the other hand there are diabetics who do not present glycosuria because of a high renal threshold which may be due to nephritis or arterio-sclerosis. John of Cleveland has shown that if we depend solely upon urinary examinations to affirm or reject the diagnosis of diabetes we shall err in about 31 per cent of cases examined. If this difficulty of diagnosis of diabetes by urinary examination exists, certainly intelligent treatment must be under the guidance of blood studies. In the

treatment of diabetes we have that recently discovered and very valuable aid known as insulin, which has done so much to dissipate the clouds of despondency which have hitherto enveloped the field of diabetic surgery. Its administration can best be directed by repeated blood sugar examinations. As in renal disease, so in pancreatic disease, the operative risks can be more accurately estimated, the operation graded to the patient and the treatment more safely carried out by frequent blood studies. The onset of coma, which in the past came suddenly out of a clear sky to overwhelm the diabetic patient, can now be foretold by the estimation of the carbon dioxide of the blood and so the surgeon is able to administer prompt treatment to prevent its appearance.

It has also been observed that patients with a severe infection often have a lowered carbohydrate tolerance and vice versa, those with diabetes have lowered resistance to infection. Thus a vicious circle is established in which infection contributes to a lowered carbohydrate tolerance and hyperglycemia results in diminished resistance to infection. Some of these cases do not present with glycosuria, and can only be correctly diagnosed by blood sugar examinations. Naturally, recognition of the diabetic condition and combined treatment for this and the infection yields better results than simple treatment of the infection alone.

Ileus is another condition in which blood chemistry findings are of decided value to the surgeon. Ileus as we know may occur following operations or independently of them. It may be due to a paralysis of one or more segments of the intestine or to mechanical obstruction of the lumen of the intestine. The mortality rate of ileus is much too high, which to a large extent is the result of delays in diagnosis and treatment. In ileus the condition of alkalosis develops due to vomiting, lack of nourishment or toxemia. Irrespective of the cause of ileus, the blood findings are similar and very characteristic. They also point to the rational method of treatment. The plasma chlorides are greatly decreased while the blood nitrogen and carbon dioxide combining power are markedly increased. With the rise of the carbon dioxide combining power above 100, tetany may be anticipated. Recognition of these conditions may be met by treatment under the guidance of blood studies. The administration of salt solution by rectum is a great aid in treating these cases with or without enterostomy. In the more critical cases glucose and saline given intravenously act with

greater promptness. In the border line case, the decision to operate can often be made by carefully watching the fall of the blood chlorides and the rise of the NPN. Furthermore the outcome of a given case can be prognosticated by these same studies.

Shock is another condition in which blood chemistry findings are valuable. Generally speaking the physico-chemical background of shock is the same regardless of the cause. Whether we subscribe to the theory of nerve cell exhaustion or that of splanchnic vasodilation or toxemia makes little difference. The end result is essentially a condition of acidosis. The outstanding change in the blood is a decrease in the alkali reserve or buffer substances with resultant decrease in the carbon dioxide combining power of the blood plasma.

We have learned that disease of the liver commonly coexists with disease of the gall bladder, and that the results of operations upon the latter depend to a large degree upon the extent of disease of the former. So in surgery of the biliary tract, estimation of the impairment of hepatic function is very important. It is true that the reserve of the liver is very great, but proper estimation of this reserve is of signal importance if major surgery in the biliary system is contemplated. The recently developed liver function tests utilizing phenyl-tetrachlorophthalein, rose bengal, etc., depend upon the ability of the liver to eliminate the drug from the blood stream. Where liver function is disturbed due to disease or injury the withdrawal of the drug from the blood stream is markedly delayed. The determination of the bilirubin content of the blood also affords us considerable information. Normally, this varies from 1 to 2 mg per 100 cc. In jaundice it may rise to 30 mg. An increase in blood bilirubin occurs before the slightest icteroid tinge of the tissues can be found and thus enables us to determine the presence of the so-called latent jaundice. By this test it is possible also to differentiate between obstructive and non-obstructive jaundice. So the determination of the bilirubin content of the blood is often the key to unlock the door of an obscure diagnosis in disease of the upper abdomen.

This paper is a rather brief review of the subject, but serves to point out the value of blood chemistry studies to the surgeon. Theoretical considerations have not been indulged in but the attempt has been made to adhere to definitely proven facts which are of clinical value to the surgeon in his daily work.

treatment of diabetes we have that recently discovered and very valuable aid known as insulin, which has done so much to dissipate the clouds of despondency which have hitherto enveloped the field of diabetic surgery. Its administration can best be directed by repeated blood sugar examinations. As in renal disease, so in pancreatic disease, the operative risks can be more accurately estimated, the operation graded to the patient and the treatment more safely carried out by frequent blood studies. The onset of coma, which in the past came suddenly out of a clear sky to overwhelm the diabetic patient, can now be foretold by the estimation of the carbon dioxide of the blood and so the surgeon is able to administer a prompt treatment to prevent its appearance.

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prie attack also requires the co-ordination of
any branches of arms and supplies, and the
reparation extends back to the factories and
transportation facilities at home.

The front line attacking forces in diphtheria is comprised of family doctors, but behind them the State Department of Health represents the central staff, and the lay organizations represent the Red Cross and other civilian organizations that inspire the morale of both the people and the front line fighters.

The diphtheria prevention campaign so far has consisted of attacks by a few bodies of regulars, repr and principally by officials of Depart-
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greater promptness. In the border line case, the decision to operate can often be made by carefully watching the fall of the blood chlorides and the rise of the NPN. Furthermore the outcome of a given case can be prognor or cated by these same studies. age of

Shock is another condition in wbt an eye chemistry findings are valuation of Rural speaking the physico-chemical of Health, and shock is the same rega expenses on account Whether we subscrig income taxes. It would cell exhaustio questions as these could safely tion on the discretion of administrative bodies. as investigators" on the one hand and judge- on the other demand a strict interpretation of the letter of the law, and so the legislators are almost compelled to fill the law books with more enactments than can be remembered or digested.

Physicians are also compelled to be on the defensive against many bills. There are chiropractor and naturopath bills whose objects are clearly evident. There are other bills drawn so cleverly that only an expert can discern their hidden import, but their disguises are plainly evident to those who have kept track of medical legislation for years.

The physicians of New York State are now in a position to handle medical legislation better than ever before. The committees on legislation in past years have made an excellent reputation for the physicians, and the legislators are outspoken in praise of those who are responsible for presenting the point of view of the physicians. It remains for the doctors of each district to impress their legislators with their own scientific outlook on public health problems.

THE TOXIN-ANTITOXIN CAMPAIGN

of the enemy's trenches in Auburn, Syracuse, New York City, and other strategic points where they have demonstrated the vulnerability of the enemy and the best plan of attack.

The family doctor is the individual soldier in the front line of attack and on him all preparations center. He must charge the enemy and deliver the final blow with his hypodermic armament.

The doctors in this campaign are not actuated by commands, but by the standards which have been set by the physicians in Departments of Health and by the leading pediatricians. County medical societies are endorsing and promoting the work, and lay public health organizations are preparing the people to co-operate with the health forces.

The Medical Society of the State of New York is actively represented on the general committee that is promoting the toxin-antitoxin campaign, and it urges its members to prepare themselves to give the immunizations to the young children of the families whom they treat.

DR GROVER W WENDE—AN APPRECIATION

Dr Grover W. Wendé, who was fatally injured by a trolley car in his home city, Buffalo, on February 9, was one of the leading dermatologists in the United States. He was Past President of the Erie County Medical Society and of the Medical Society of the State of New York, and during the war he was selected by the Surgeon General as a special advisor in venereal diseases.

He took an active interest in public health problems and his last official act was to preside at a meeting of the Central Nurses' Registry of Buffalo of which he was president.

In his private life, Dr Wendé was no less noble than in his official career. His rugged character and human traits of manliness were combined with a native kindness and warmth of heart which ever reflected the gleam in his eye and the suggested smile on his lips. He was the friend of his medical colleagues and often went out of his way to help a young practitioner. He was always ready to help others to achieve the high measure of usefulness that was his.

Resolution Passed by the Executive Committee

WHEREAS Doctor Grover W. Wendé rendered distinguished service as President of the Medical

Society of the State of New York, as Delegate to the American Medical Association, and in constant and devoted service to organized medicine for many years and

WHEREAS, He established a brilliant reputation for the highest attainments in Scientific Medicine, as practitioner and teacher in the field of Dermatology and

WHEREAS, His strength of character, breadth of vision, modesty, and charming personality endeared him to all who knew him, and

WHEREAS, The Executive Committee of the Medical Society of the State of New York feels that the Society has sustained an irreparable loss in his untimely death, therefore be it

Resolved, That the Executive Committee extend to the family of Dr Grover W. Wendé sincere and heartfelt sympathy, and that these resolutions be spread upon the minutes of the Executive Committee and published in the NEW YORK STATE JOURNAL OF MEDICINE

NATHAN B. VAN ETEN,
WILLIAM H. ROSS,
FREDERIC FLAHERTY,
E. ELIOT HARRIS
JOHN A. CARD,
DANIEL S. DOUGHERTY

NERVOUSNESS

Cases of mental disorders in their incipency nearly always come under the care of family doctors. The afflicted person is sleepless or suffers with pains and other uncomfortable feelings, or is "nervous" and apprehensive without apparent cause. When a patient complains of something that is tangible—a pain in the side or "gas on the stomach"—the doctor can readily reassure him that what he has is nothing serious, and that he will not have a cancer or go crazy. But sometimes the condition about which complaint is made is only the cloak of the real difficulty—an excuse which conceals the real condition. These cases are undesirable to most doctors and physicians try to get rid of them on the ground that the trouble is imaginary.

Granting that the physical condition is imaginary, the fact remains that the mental state is abnormal and pathological and may lead to a disorder that is as disabling as a broken leg or pneumonia. It is the duty of family doctors to diagnose and treat mental disorders with the same care that they devote to physical conditions. The science of psychiatry is systematized, standardized, and simplified to such an extent that a family doctor can readily understand its principles. The family doctor is peculiarly well qualified to diagnose and treat incipient mental conditions, because he is informed regarding the home conditions and the family history of the patient.

A family physician has to give due consideration to the popular conceptions regarding mental disorders. The most common early manifestation of mental trouble is what is popularly called "nervousness." A "nervous" person is often popularly credited with an unusually strong brain, because he seems to have increased sensitiveness and keenness of imagination and a receptiveness to suggestions. People fail to realize that an excessive emotional response is an abnormal mental act which borders on the pathological. It is in reality a mental unbalance. But while persons generally are willing to be called "nervous," they resent the imputation that they are mentally "unbalanced."

It is one of the principles of the practice of psychiatry that the physician shall appear to give the patient credit for an excellent mentality. The unbalanced patient usually reasons correctly, but he starts from wrong premises. It is the object of the physician to discover the abnormal condition which underlies the patient's line of reasoning. Usually, the underlying condition is an unfounded fear. A child, for example, is severely reprimanded for a trifling sexual commission and is told that everybody is ashamed of him. As the sexual feeling naturally continues, a sense of shame and wrong doing may be balanced against a natural desire of the body in a life-long conflict which may find expression in the form of nervous states, and later in domestic quarrels. A kind

family physician who can discover the origin of this mental state can usually cure the mental condition readily

When the cause of a fear is explained, the mystery disappears, nervousness ceases, and the unpleasant condition may even inspire pleasure and confidence. The weird tremulo of a little screech owl at midnight is a potent cause of night terror for a small child. But when the cause is discovered and the explanation made that the noise is the happy song of a little bird

guarding the child, the sound becomes a song of welcome reassurance

The newer standards of the practice of psychiatry require the family doctor to study the unreasoning fears of his "nervous" cases and discover the conditions which give rise to the fears. These studies will have an effect beyond the immediate present, for they constitute the most hopeful method of the prevention of insanity.

A case illustrating some of the points of this editorial is described on page 185 of this issue

LOOKING BACKWARD TWENTY-FIVE YEARS

The February, 1901, issue of this JOURNAL contains two articles on diphtheria which illustrate the state of medical thought regarding diphtheria during the slow evolution of the modern conceptions regarding the disease. The first article is on two epidemics of diphtheria in Ithaca traced to milk supplies and was by Dr. Chauncey P. Biggs, brother of the late Commissioner of Health of New York State. The introduction discusses some previous epidemics that were presumably milk-borne and states that in one epidemic the cowyard received household sewage and that two members of the family had diphtheria. In explanation of the transmission of the disease in former epidemics, Dr. Biggs quotes

"It seems probable that the udders of the cows as they lay in the litter may have become infected and the bacilli may have fallen into the milk during the milking. Another possible factor in the contamination of the milk was a sick chicken found on the dairy yard. Clinically the fowl had diphtheria. False membrane most typical in appearance was found in its throat and its nostrils."

"Cultures were made from the milk, but failed to develop the characteristic Klebs-Loeffler organisms. The strong evidence of milk infection is the fact that a large percentage of the patients were supplied by certain milkmen, yet the way the milk became infected could not be explained. Very strong evidence of the infected character of milk was shown in one epidemic in which liberal users of boiled milk wholly escaped."

The article states that there was a supposed connection between chapped and ulcerated affections of the teats and udders and diphtheria, and that diphtheria of the teats is known in England as chapped teats. It quotes one authority as saying "It is difficult if not impossible to account for the infectious qualities of the milk in those epidemics where diphtheria could not be found at the milk farms or shops unless we are permitted to look to the cows themselves as a source of infection. It is further suggested that in many of these cases it is probable that we have to deal with a staphylococcus or streptococcus infection."

In describing the Ithaca epidemic the author says: "The first case had been treated in the be-

ginning and reported to the Board of Health by a physician who had lost his standing in the family by his effort to protect the neighborhood and observe the regulations of the Board of Health. He had been summarily dismissed. It is presumable that the family physician in the second case had visions of similar treatment and he decided not to report the case."

The report goes on to describe a series of cases with several deaths in the practice of this second doctor "who did not believe in antitoxin."

The second article is by Dr. Veranus A. Moore on the control of diphtheria in small cities and country districts from the bacteriological standpoint. Dr. Moore was then, as now, a leading professor in the State Veterinary College and an authority on the bacteriology of milk. His article is a discussion of the epidemic described by Dr. Biggs and a plea for the method of control which he calls the "Culture Method." He states that "while the method is enforced in large cities, it has not been generally adopted outside of the thickly populated cities."

What are now called carriers were called "Germ Cases," and Dr. Moore recognized their dangerous nature. However, he said, "In this state the Board of Health seems to hesitate to consider 'Germ Cases' to be sufficient danger to warrant the treating of them, so far as quarantine is concerned in the same category as clinical ones. This seems to be unfortunate for the enforcement of safe quarantine as defined bacteriologically will in some cases be impossible, unless the local authorities are sustained by the State Board in Ithaca. We had difficulty with one such case, and the defendant secured complete legal advice that quarantine could not be lawfully maintained if the throat showed, macroscopically no signs of disease, and this opinion was acquiesced in by the Commissioner of the State Board of Health. It is to be hoped that ere long the law will recognize the carrier of virulent diphtheria bacteria, no matter what the physical condition may be, as a fit subject for therapeutic or prophylactic treatment and isolation."

Dr. Moore closes his article with a column plea for the adoption of the culture method of diagnosis and control by all the communities of the state, rural as well as urban.



MEDICAL PROGRESS



The Recent Cancer Research in London—Nather, a Vienna surgeon, recently delivered an address before a local medical society which appears in the *Wiener klinische Wochenschrift*, December 10, 1925, with especial reference to cancer research. At the instigation of Professor Eiselsberg he had made a special trip to London to investigate the status of the subject at first hand. He visited the London Cancer Hospital and Imperial Cancer Research Institute. The former is no less an active experiment station than the latter. The writer mentions the routine use of the Fry serological test, which gives positive results in 70 to 80 per cent of all cases, and in his opinion it possesses no advantage over the Freund-Kaminer reaction. He mentions with approval the work of Kennaway of the chemical division of the Cancer Hospital, who specializes at present in the carcinogenic substances present in tar, paraffin, etc. This scientist has prepared a tar-like substance from human skin and subcutaneous tissue which can generate mouse cancer. Neither Gye nor Barnard is connected in any way with either of these cancer institutions for Gye does his bacteriological work in the Field laboratories at Mill Hill, near London, while Barnard pursues his optical studies in his private laboratory (formerly a hospital for consumptives) in Hampstead. The writer after a detailed description of the work of Gye and Barnard sums this up in stating that Gye has successfully cultivated the Rous virus but has not yet shown any true pathogenicity beyond the production of Rous's fowl sarcoma. Barnard's service has been in the direction of increased visibility and of demonstrating a new method of reproduction in the most minute microorganisms.

A Study of the Rous Chicken Sarcoma No. 1—T. J. Glover, M. J. Scott, Julian Loudon, and J. M. McCormack (*Canadian Lancet and Practitioner*, February, 1926, lvi, 2) have repeated the work of Rous, Gye and Barnard with Rous chicken sarcoma No. 1, to which they add some original investigations along similar lines. They claim to have isolated, cultured, and described a morphologically similar, Gram positive, pleomorphic organism from the fresh tissue of Rous chicken sarcoma No. 1, from human carcinoma, mouse carcinoma (63), rat carcinoma, human sarcoma, and rat sarcoma (Jensen), also from the blood of the hosts of these malignant growths. A salient feature of the morphology of the organism of Rous chicken sarcoma No. 1, which is also common to organisms isolated from other malignant growths, is that there is a fil-

terable phase, and in this filterable phase the organism is invisible with the highest power of the ordinary microscope. The authors believe that the filterable organism from Rous chicken sarcoma No. 1, reported by Gye, is the filterable phase of this pleomorphic organism. They have demonstrated that when the clear, transparent Buchner (or sand) filtrate from Rous chicken sarcoma No. 1 is treated with chloroform and heated, according to the technique which they describe, the organism is not killed, but is attenuated and will not produce growths in this state, when the organism, as cultivated from this chloroform-and-heat-treated filtrate, is placed in the culture medium and incubated under either aerobic or anaerobic conditions, a pure culture is obtained in from forty-eight to seventy-two hours which shows all the characteristics of the organism cultivated from the fresh tissue, and again produces true spindle-celled sarcomatous growths. The authors maintain that the etiological factor in sarcoma is the pleomorphic organism herein described, holding at the same time that infection does not take place clinically unless the resistance of the cell has been previously lowered.

Parallelism in the Treatment of Tuberculosis and Cardiac Disease—Horace John Hawk (*Archives of Internal Medicine*, January 15, 1926, xxvii, 1) relates his experience in the treatment of cardiac disease in a modern tuberculosis sanatorium. This quite novel experiment was carried out under the auspices of the Metropolitan Life Insurance Company in its Sanatorium at Mount McGregor, where for several years it has cared for patients with cardiac disease as they have been recognized among the company's staff of employees. A comparative study of the mortality rates of tuberculosis and cardiac disease shows that a cut of more than half in the tuberculosis mortality is in sharp contrast to the mortality from heart disease which has increased 31 per cent during approximately the same period. Some idea of the enormity of the problem presented by heart disease can be obtained when we consider that a conservative estimate indicates that 300,000 children in the United States are thus affected, and will carry this serious disability throughout their precarious lives. The personnel and equipment of the modern tuberculosis sanatorium are peculiarly well adapted to the treatment of heart disease. Separation of the cardiac patient from the environment in which he got sick is often quite as important from the standpoint of recovery as it has proved to be in the treatment of tu-

berculosis Specifically the cardiac patient requires rest in bed The general plan of treatment provides for complete bed rest of every patient until the essential laboratory examinations have been made In the sanatorium the period of bed rest averaged forty-four days The patient's physical resources are tested gradually to determine the limits within which he can exercise without danger This period of graduated exercise is continued persistently until it is demonstrated that the vascular system either has or has not enough resources to enable the patient to resume work, or until he can take up an occupation Of 412 cardiac patients discharged from the sanatorium up to Dec 31, 1924, 198, or 48 per cent, are able to do full time work, 13, or 3.2 per cent, can carry on modified work, 109, or 26.4 per cent, are unable to work, and 79, or 19 per cent, are dead Many tuberculosis sanatoriums could be adapted to the treatment of cardiac patients, and the number of heated rooms and wards could be increased without undue expense to care for the type of patients requiring a uniformly mild atmosphere, such as those with badly broken compensation and those having associated severe nephritis The Nauheim baths, which have been so extensively used in the treatment of some forms of cardiac disease, could be readily and inexpensively given in any institution

Chronic Nasal Diphtheria and Atrophic Rhinitis—The term diphtheria carrier may mean nothing more than that non-virulent bacilli are found in the throat or nose It is immaterial as a rule whether a carrier has or has not suffered from the disease himself During the World War it was noted by German army surgeons that in some small epidemics carriers outnumbered actual victims of the disease Experience differs greatly as to the duration of the sojourn of the bacilli in the host The maximum has been placed as low as 3 months but in certain conditions, such as atrophic rhinitis, this sojourn is believed to have extended to 2 or 3 years Abraham, writing on the relation of atrophic rhinitis to nasal diphtheria (*Deutsche medizinische Wochenschrift*, December 18, 1925), says that he has examined many patients with atrophic rhinitis for diphtheria bacilli and has found them in only thirteen The bacilli were the genuine Klebs-Loeffler organisms although nothing is said of their virulence In only two of the 13 was there a history of clinical diphtheria The rhinitis was in the early stage, or at least there were no long standing cases and no sinus complications The symptoms comprised purulent discharge, crusting headache loss of smell, and prostration Under the circumstances the author suggests the possibility that this entire series of cases might have been chronic nasal diphtheria Pfeiffer, with an experience similar

to the author's concluded that an initial nasal diphtheria may bring about an atrophic rhinitis If the author's cases were post-diphtheritic it is evident that the early stage of nasal diphtheria can pass unnoticed, for there was no evidence of membrane formation at any time There would evidently be a risk in operating on these patients before the nasal passages were sterilized The author treated his patients with antitoxin, an autovaccine from a stock culture, and local disinfectants

Diagnostic Significance of the Endothelial Symptom—This symptom which was originally known as the Rumpel-Leede phenomenon, was believed at first to be pathognomonic of scarlet fever It is dependent on a heightened permeability of the capillaries, as a result of which stasis due to constriction of the upper arm is followed by some degree of extravasation of blood varying from a few puncta to large confluent macules In an article in the *Munchener medizinische Wochenschrift* of December 25, 1925, Stephan says that the phenomenon, far from being specific, is practically universal, it cannot be induced save in the arm above the elbow, and cannot be elicited by dry cupping or any other kind of mechanical resource It has been studied exhaustively by the author and others and is now known commonly as "the endothelial symptom" It is well marked, relatively speaking, in three distinct classes of cases First, direct injury to the endothelium of the blood-vessels, such as arises in bacterial and chemical intoxications, and further in avitaminosis The second group has an endocrine component seen especially in Graves's disease and ovarian dysfunction, hence at time preceding menstruation The third group, which is mentioned without comment, comprises cases in which there is some disease of the central or peripheral nervous system In each of the three groups the phenomenon is present with sufficient frequency to be known as a positive endothelial symptom In order that the test may be uniform the author directs that the constriction be made by a broad rubber band applied on the upper arm half a hand's breadth above the bend of the elbow, the compression should be sufficient to make the arm feel heavy and the hand slightly numb although the radial pulse must remain perceptible The band must be left in position five minutes

Progress of Our Knowledge of Spasmophilia—According to Lesne and Turpin (*La Presse Médicale*, January 2, 1926), a distinction must be made between the basic spasmophilic state and the active manifestations (crises) of tetany The writers do not attempt to elucidate the nature of the former, which is an inherent overexcitability of the neuromuscular system,

but hold that the factor which elicits the manifestations of tetany is a blood state which has two components, one a disturbance of the acid-base equilibrium, the other representing a fall in the amount of the ionized blood calcium. Four theories have been active in the explanation of tetany, known respectively as the parathyroid, alkalosis, toxic, and calciprivic. Parathyroid tetany is apparently a special form, chiefly experimental, which is quite independent of the other, or clinical type. The toxic theory is based largely on the fact that animals deprived of the parathyroid glands have lost their natural resistance to poisons of various kinds and hence the significance of the theory is directed rather toward the parathyroid than to the ordinary tetany. There remains the alkalosis and the calciprivic theories which do not exclude each other and may be said to point to a common blood condition of recurrent or periodic character. A blood state somewhat similar to this has been encountered in epilepsy by Bigwood.

The Westphal Pupillary Phenomenon Following Epidemic Encephalitis—Westphal, the neurologist of Bonn, writes of the phenomenon which he was the first to describe over four years ago and which has now a large literature. Formerly spoken of as a catatonic rigidity of the pupil, it should now be known in the author's opinion rather as "alternating rigidity" or "mobile spasm" of the pupil. The earlier name was given because it was originally held that the pupillary condition agreed with that seen at times in catatonic dementia precox, which would seem to point to a process in the corpus striatum. The author gives numerous case histories in which the pupils are described. The first patient was not seen until nearly two years after his encephalitis first appeared. The pupils were of medium width and were seen to be rigid when light was thrown on them from a pocket flash. This condition stood in some necessary relation to spasm of the orbicularis, for the pupils were seen to be quite normal when the spasm was absent. In some of these cases it was necessary to force the eyes open in order to apply the pupillary test. The fact that the rigidity develops when the beam of light is thrown on the eye, when normally the pupils should contract, has also given the name "mydriatic rigidity" to the phenomenon. Several of the cases were in patients presenting the full post-encephalitic Parkinsonian syndrome. Some neurologists have found the symptom common, others rare, in these post-encephalitic cases—referring always to epidemic encephalitis because the phenomenon has not yet been seen after secondary focal encephalitis. There is an affective factor in some of these cases, for when the attention can be diverted sufficiently the phenomenon may be absent. The rationale of this pupillary behavior is still ob-

scure—*Deutsche medizinische Wochenschrift*, December 18, 1925.

Feer's Disease—This condition was first described as an autonomous affection by Feer in 1922, although it had been known as a syndrome before this period, at least in America and Australia. Feer was followed by Jaeger, and M. Muller, who is assistant to Professor Birk, the pediatricist of Tübingen, is the third to report a case. This occurred in a child of three years and was chronic in type, ending in recovery. The chief symptom is the recurrent sweating which causes secondary changes in the skin such as vesicle formation and desquamation, the extremities also being cyanotic. The skin is cold, damp and bluish-red. The next most striking symptom is motor weakness and tremor. The pulse is rapid as in Graves's disease and the blood pressure is increased. There is nocturnal restlessness with insomnia. In the author's patient there was spasmophilia to the induced tests although this symptom is not mentioned by Feer or Jaeger. The author makes no comment on a certain parallelism with hyperthyroidism and Graves's disease. The patient was submitted to the pharmacological tests. Adrenalin increased the blood pressure slightly and brought the pulse from 168 to 142. Pilocarpine made the pulse still more rapid than the disease itself—152 to 164. Atropine, given as a test, acted in a striking fashion, for the cold, moist, and livid skin became warm, dry, and bright red. This drug was then given therapeutically and the child made a brilliant recovery. Before the test the only remedy giving any relief to the patient had been large doses of bromide which calmed the restlessness and induced sleep.—*Muenchener medizinische Wochenschrift*, December 25, 1925.

Radiotherapy of Postoperative Pneumonia.—Fried returns to this subject after an increased experience, his first article having been based on a comparatively small material. It is known that pneumonia may follow abdominal operations in something like 5 to 10 per cent of all cases and that the mortality may be extremely high in individual experience even to the full 100 per cent. There has been no successful treatment unless the use of ethylhydrocupreine may be so called, so that the author felt justified in testing the x-ray. He is by no means alone in his employment of this resource for the affection in question, for in addition to his own experience he quotes the recent figures of others. One of his colleagues had nine recoveries in fifteen cases, another eight in ten cases, while Kutscher has collected notes of fifty-seven recoveries under this management, evidently not including the author's own material, which comprises forty cases with but one death, although seven others were not benefited by the treatment. In other words, the author cured 80 per cent of his patients and had a mortality

of but 25 per cent. Despite this apparent reversal of the usual percentages the author makes no extravagant claims as yet. The first question to suggest itself would have reference to the utility of this treatment in ordinary pneumonia. He has tested it in a few cases of both lobar and broncho-pneumonia with apparent success. In regard to the technique, this is described imperfectly, probably because it is undergoing constant change and no standard can be laid down. Nothing is said of the number and frequency of exposures. The focal distance is apparently from 25 to 50 cm., the filtration one-half inch each aluminum and zinc, the dose 80 to 120 erythema doses, etc. The rationale is quite unknown, the rule has been deference by crisis or steep lysis.—*Klinische Wochenschrift*, January 1, 1926

Paresis and Syphilitic Aortitis—The relationship between these manifestations of syphilis is by no means apparent, for while some authorities have grouped them both in an alleged quaternary stage of the disease, others call attention to the fact that syphilis of the aorta is certainly not a neurotropic manifestation and that vascular syphilis in general should be ranked under the usual manifestations of the disease, while metasyphilis is neurotropic. Coenen, pathologist of the University of Bonn, having read a recent communication of Kessler to the effect that mesoarteritis was present in 66 per cent of his autopsies on victims of locomotor ataxia, began a study of the records of his own clinic for paresis. Of 147 patients seen since 1919 about 43 per cent had aortitis while in the course of a long period before the late war the figure was but 22 per cent. This brought up the question of the increased incidence of aortitis and its possible cause. He consulted the records of other clinics and while in one series the current percentage was but 33 in another clinic it was 50. Hence there can be no doubt of an increase, although how large is uncertain. In addition to these autopsy figures clinicians like Finger and others have likewise noted an increase in the incidence of aortitis, without especial bearing on metasyphilis. This increase coincides roughly with the introduction of arsphenamine therapy and raises the perfunctory question of the possibility that this drug in some way may have been responsible for the increase. This does not seem a rational explanation, for usually metasyphilis is associated with insufficient early treatment of syphilis.—*Klinische Wochenschrift*, January 1, 1926

Medical or Surgical Treatment of Gastric Ulcer—The *Munchener medizinische Wochenschrift* for January 15, 1926, contains four articles on this subject which are inspired by a recent article of Professor Morawitz, an internist, in which he seemed to be favorably disposed toward

the surgical treatment of this affection. Lehmann, the first contributor, speaks of the surgical indications of ulcer which are not really the ulcer in itself but certain complications—perforations, stenosis, and hemorrhage, all given by the old writers, to which could be added others such as pylorospasm and chronic gastritis. It is these complications or sequelae which create indications for surgical intervention.

Schwarz mentions both spontaneous and post-operative hemorrhage as surgical indications and formulates these as follows: (1) Chronic recurrent hemorrhage is always a surgical affection, (2) Acute severe hemorrhage is never a surgical indication at first but becomes one after internal management has failed. Bleeding ulcer should be treated by (a) suture, (b) invagination, or (c) excision. It, in a case of perforation, operation is resorted to within the first six hours there should be practically no mortality, while failure to operate will mean a very high mortality.

König had already expressed himself at length in an article in the same journal of January 8. In this article he had noted that of the 462 cases referred to by Morawitz as having been treated medically, no less than 105 had been referred to the author finally for surgical treatment. Morawitz is a partisan of the spastic theory of the origin of this affection but this view König is unable to share, his belief being based upon a number of animal experiments. He says further that even if vagus irritation will cause ulcer it is hardly possible to cure ulcer by division of the vagus for the author has done this operation with little or no benefit to the lesion. Should the surgeon operate on the diagnosis of the internist? The writer in thus acting has of course often found ulcer, but sometimes has found only the condition described as "gastric ulcer without ulcer." This may mean adhesions, division of which will cure the basic condition for the time being although such cases may relapse, and then he has sometimes actually found ulcer at the second operation. Or "ulcer disease without ulcer" may mean chronic gastritis. Morawitz claims cures of about 60 per cent of ulcer with medical treatment, but both the callous and the non-callous ulcers may remain uncured. König, like many others, is swinging from gastroenterostomy to the radical operations, which in experienced hands, he says, may give a mortality as low as 3 per cent.

Morawitz, who contributes the fourth article himself, insists that the medical and surgical treatment need not conflict, for if we adhere to the former we are practically certain of curing 55 to 60 per cent of the patients, this figure being also likely to be bettered in the future. We still have surgery to fall back on, when indication arises, which will give us 85 per cent of radical cures.



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York.

THE CHIROPRACTOR AND THE DRUGLESS PRACTITIONER

What is the practice of medicine? Why is it that those who practice it are the natural enemies of quackery and charlatanism, through which, under the guise of miraculous cures, avaricious imposters trade upon the credulity of the ignorant?

The second question is answered by a close analysis of the first. Let us employ Webster's Dictionary. "Medicine" is defined "as the science which relates to the prevention, cure or alleviation of disease." "Science" is "ascertained truth" or "accumulated and established knowledge." "Practice" is the "application of science to the wants of men." Applying these definitions, the practice of medicine may be defined as the application of ascertained truth and established knowledge to the prevention, cure or alleviation of human diseases.

Chiropractic, "drugless practice" and allied and similar fallacies are opposed by the legitimate practitioners of medicine for the simple reason that the unproven theories upon which they rest are not based upon "ascertained truth" or "established knowledge." The followers of these cults have not subjected and would not dare to subject, the doctrine which they profess to scientific scrutiny or analysis—to the test by which their truth or falsity could be scientifically "ascertained."

The reason why "medicine" is defined as "science" is because it rests on "ascertained truth" and "established knowledge." "Medicine" does not rest upon the mere assertion of the truths which underlie it, but upon the fact that that which it asserts as "truth" has been "ascertained." The charlatan substitutes declamation and assertion for "ascertained truth." Whether his assertion be true or false is of indifference to him provided, by making the assertion, he can secure enough paying followers to believe in him and that which he asserts.

There is nothing more truly progressive than the mind of the scientist. He is eager for new knowledge, is constantly searching for it, and having found it is quick to employ it, but before he is ready to accept it as knowledge, or to act upon it or to advise others to act upon it, the truth underlying this new knowledge must be scientifically tested and established—it must be "ascertained."

In our last editorial we reviewed the pending chiropractic bill and showed how it was in-

tended thereunder to waive examination for practically all those now practicing spinal manipulation. Another measure pending before the legislature is a bill introduced by Mr Lambert, January 25, 1926, Print No 437, Introductory No 438, relating to "drugless practice."

It is unnecessary here to analyze the truth or falsity of this method of treating human disease—a method which is defined by the bill as "based on the science derived from knowledge of the aggregate of all the natural and mechanical methods such as the manipulation of the body including the spine, the application of light, heat, water, air, diet, mechanical apparatus and electricity in the treatment of disease and removal of abnormalities of the body without the use of drugs, medicine, surgery, osteopathy, obstetrics or Christian Science." Whether, in the treatment of certain types of disease, the application of these agencies by trained scientific men may be of value is a question which does not require analysis at this time, for the reason that the proposed bill seeks to admit, by the familiar waiver method, all those who are now engaged in "drugless practice."

Section 285-1 provides that "any person twenty-one years of age who is of good moral character, who for at least *twelve years* prior to January 1st, 1926, has practiced drugless methods exclusively" within the State, or drugless practitioners "who for at least *nine years*" have so practiced, having a diploma from a legally incorporated school or college of drugless methods, or drugless practitioners "who for at least *six years* prior" to said date have so practiced and have a similar diploma from such a school "requiring a residence course of study", or drugless practitioners "who for at least *three years* prior" to said date, have so practiced and have similar diplomas from such school or college "requiring a residence course of at least twelve months", or drugless practitioners who have so practiced and are graduates from such school requiring a residence course of at least eighteen months, "may within one month after this act goes into effect, *without examination* and upon payment of the sum of twenty-five dollars to the board, receive from the board a certificate, which, when presented to the regents, shall entitle such person to a license to practice drugless methods, as though such examination had been taken and successfully passed and then

certified by the regents. The State Board of Regents shall issue a license to practice drugless methods to all those certified by the Board.

In this bill, as in the chiropractic bill discussed in our last editorial, certain educational requirements and examinations are required of those who hereafter desire to practice drugless healing, but in the meantime either all or a very large number of those now engaged in such practice and who have not been subjected to the test of any State examination but have complied with the provisions of the section quoted, will become entitled to a license.

This bill, the chiropractic bill, and similar measures, through the guise of educational requirements and examinations for those hereafter to be admitted, seek to license, by a general waiver or amnesty provision, those who are now engaged in the practice of their particular cults—that is, those who are now illegally practicing medicine as defined by the Public Health Law.

It is the elementary duty of the legislature to protect, preserve and safeguard the public health. It is its duty to defend the people of the State against imposition and to entrust the care and treatment of disease to those only whose fitness and knowledge have been ascertained and tested by the State. The primary duty of the law-making body is to consider the public health and not to provide a method by which untrained

and incompetent men may be turned loose to prey upon human credulity and ignorance.

Who is more competent to advise the legislature in these matters than those who themselves have been subjected to rigid tests of State examinations and have been devoting their lives, their strength and their minds to the ascertainment of scientific knowledge and to the proper application of that knowledge to the cure, prevention and alleviation of human pain and suffering? Those who feel the call to practice medicine engage in long, laborious and difficult study, the knowledge which they acquire from this study is thoroughly tested by the State. That is as it should be. Life is short and science is long. No study is too much. Why, then, should an army of men be licensed and admitted to practice, whether the practice be called "chiropractic," "drugless practice" or by some other name, who have not engaged in this study, have not mastered the science of medicine, have not been subjected to State examinations, and have not demonstrated the possession of that knowledge and training which it is essential they should possess if the health and welfare of the human race is to be adequately safeguarded and protected? Every legitimate effort should be expended for the prevention of the passage of the drugless practice bill.

ACTION FOR SERVICES RENDERED—MALPRACTICE COUNTERCLAIM

A physician having rendered professional service to a patient and thereafter having rendered various bills for such service and the same not being paid, he instituted an action for the collection of his bill. His complaint in this action was met with a general denial, except the defendant admitted that certain services were rendered. The defendant likewise, as a means of avoiding the payment of the physician's bill, interposed a counterclaim of alleged malpractice, charging that the physician was engaged to attend and treat an abscess on the left side of the body, that he failed to make a proper examination and likewise failed properly to attend, prescribe and care for the condition, and that by reason of such negligence the collapse of the patient was caused and she was obliged to spend a period of about

five months in a sanitarium under the care of physicians and nurses until the condition was cured and she was restored to health.

Upon the receipt of the counterclaim a motion was made to dismiss the complaint on the ground that it being an action of alleged malpractice it was barred by the two-year statute of limitations, which motion was granted. It was argued by the patient that the counterclaim was based upon breach of contract and therefore fell under the six-year statute of limitations. This contention was not sustained by the court, it holding that the claim was one of malpractice and barred by the two-year statute of limitations. The motion to dismiss was granted and the physician was then enabled to collect his bill.



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

THE CHIROPRACTOR AND THE DRUGLESS PRACTITIONER

What is the practice of medicine? Why is it that those who practice it are the natural enemies of quackery and charlatanism, through which, under the guise of miraculous cures, avaricious imposters trade upon the credulity of the ignorant?

The second question is answered by a close analysis of the first. Let us employ Webster's Dictionary. "Medicine" is defined "as the science which relates to the prevention, cure or alleviation of disease." "Science" is "ascertained truth" or "accumulated and established knowledge." "Practice" is the "application of science to the wants of men." Applying these definitions, the practice of medicine may be defined as the application of ascertained truth and established knowledge to the prevention, cure or alleviation of human diseases.

Chiropractic, "drugless practice" and allied and similar fallacies are opposed by the legitimate practitioners of medicine for the simple reason that the unproven theories upon which they rest are not based upon "ascertained truth" or "established knowledge." The followers of these cults have not subjected and would not dare to subject, the doctrine which they profess to scientific scrutiny or analysis—to the test by which their truth or falsity could be scientifically "ascertained."

The reason why "medicine" is defined as "science" is because it rests on "ascertained truth" and "established knowledge." "Medicine" does not rest upon the mere assertion of the truths which underlie it, but upon the fact that that which it asserts as "truth" has been "ascertained." The charlatan substitutes declamation and assertion for "ascertained truth." Whether his assertion be true or false is of indifference to him provided, by making the assertion, he can secure enough paying followers to believe in him and that which he asserts.

There is nothing more truly progressive than the mind of the scientist. He is eager for new knowledge, is constantly searching for it, and having found it is quick to employ it, but before he is ready to accept it as knowledge, or to act upon it or to advise others to act upon it, the truth underlying this new knowledge must be scientifically tested and established—it must be "ascertained."

In our last editorial we reviewed the pending chiropractic bill and showed how it was in-

tended thereunder to waive examination for practically all those now practicing spinal manipulation. Another measure pending before the legislature is a bill introduced by Mr Lambert, January 25, 1926, Print No 437, Introductory No 438, relating to "drugless practice."

It is unnecessary here to analyze the truth or falsity of this method of treating human disease—a method which is defined by the bill as "based on the science derived from knowledge of the aggregate of all the natural and mechanical methods such as the manipulation of the body including the spine, the application of light, heat, water, air, diet, mechanical apparatus and electricity in the treatment of disease and removal of abnormalities of the body without the use of drugs, medicine, surgery, osteopathy, obstetrics or Christian Science." Whether, in the treatment of certain types of disease, the application of these agencies by trained scientific men may be of value is a question which does not require analysis at this time, for the reason that the proposed bill seeks to admit, by the familiar waiver method, all those who are now engaged in "drugless practice."

Section 285-1 provides that "any person twenty-one years of age who is of good moral character, who for at least *twelve years* prior to January 1st, 1926, has practiced drugless methods exclusively" within the State, or drugless practitioners "who for at least *nine years*" have so practiced, having a diploma from a legally incorporated school or college of drugless methods, or drugless practitioners "who for at least *six years* prior" to said date have so practiced and have a similar diploma from such a school "requiring a residence course of study", or drugless practitioners "who for at least *three years* prior" to said date, have so practiced and have similar diplomas from such school or college "requiring a residence course of at least twelve months", or drugless practitioners who have so practiced and are graduates from such school requiring a residence course of at least eighteen months, "may within one month after this act goes into effect, *without examination* and upon payment of the sum of twenty-five dollars to the board, receive from the board a certificate, which, when presented to the regents, shall entitle such person to a license to practice drugless methods, as though such examination had been taken and successfully passed and then

certified by the regents The State Board of Regents shall issue a license to practice drugless methods to all those certified by the Board"

In this bill, as in the chiropractic bill discussed in our last editorial, certain educational requirements and examinations are required of those who hereafter desire to practice drugless healing, but in the meantime either all or a very large number of those now engaged in such practice and who have not been subjected to the test of any State examination but have complied with the provisions of the section quoted, will become entitled to a license

This bill, the chiropractic bill, and similar measures, through the guise of educational requirements and examinations for those hereafter to be admitted, seek to license, by a general waiver or amnesty provision, those who are now engaged in the practice of their particular cults—that is, those who are now illegally practicing medicine as defined by the Public Health Law

It is the elementary duty of the legislature to protect, preserve and safeguard the public health It is its duty to defend the people of the State against imposition and to entrust the care and treatment of disease to those only whose fitness and knowledge have been ascertained and tested by the State The primary duty of the law-making body is to consider the public health, and not to provide a method by which untrained

and incompetent men may be turned loose to prey upon human credulity and ignorance

Who is more competent to advise the legislature in these matters than those who themselves have been subjected to rigid tests of State examinations and have been devoting their lives, their strength and their minds to the ascertainment of scientific knowledge and to the proper application of that knowledge to the cure, prevention and alleviation of human pain and suffering? Those who feel the call to practice medicine engage in long, laborious and difficult study, the knowledge which they acquire from this study is thoroughly tested by the State. That is as it should be Life is short and science is long No study is too much Why, then, should an army of men be licensed and admitted to practice, whether the practice be called "chiropractic," drugless practice" or by some other name, who have not engaged in this study, have not mastered the science of medicine, have not been subjected to State examinations, and have not demonstrated the possession of that knowledge and training which it is essential they should possess if the health and welfare of the human race is to be adequately safeguarded and protected¹ Every legitimate effort should be expended for the prevention of the passage of the drugless practice bill

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State Department of Health



Fewer People Die of Old Age

Forty years ago, almost 5,000 deaths in the State were attributed to "old age." Last year the number of deaths under this rubric was only 610, a decrease of almost 90 per cent. The number of deaths from all causes has increased 75 per cent in this period of time. What is the reason for the astonishing decrease in mortality from "old age"?

Most of the deaths under this rubric fall in the age group "70 years and over," although some deaths are attributed to senility at earlier ages, occasionally even in early middle life. The population of the State has doubled and the number of old people has more than doubled since 1885. The decrease in the number of deaths from old age is therefore not due to a shrinking in the contingent of the population from which these deaths are drawn. The reason for this change lies in the more careful and scientific diagnosis of the cause of death. Where forty years ago, because of indifferent reporting or for want of knowledge the death of an old person was often attributed simply to the effects of old age, now an effort is made to establish a definite diagnosis in every case. The progressive reduction in deaths under this head marks the growing skill and attention on the part of the practicing physicians of the State.

Are Gonorrhea and Syphilis Decreasing in the Rural Districts?

The incidence of gonorrhea and syphilis as reported upstate has always been very low in the rural as compared with the urban districts. It has frequently been pointed out that there is no conclusive evidence that the actual incidence is less in the rural districts than in the urban districts and the difference in the morbidity rates has been attributed to such factor as, (a) people residing in rural districts seeking treatment in the city and giving a city address, (b) a less careful searching in the rural districts than in the city for hidden cases of syphilis when it is not reported, (c) a lack of diagnostic facilities in the rural towns and villages, (d) a lack of clinic having found the country districts for the treatment of these diseases. However, all of these factors to act upon it originate as far as known to the same it, the truth underlying from the time the statistics be scientifically tested. Yet the percentage of cases he be "ascertained" is low, where the incidence is low.

In our last editorial we fell from 1951 to 1925. The following table will show the consistent decrease in the proportion of total cases classified as rural.

98 in 1925. There has been an equally consistent decrease in the percentage of total cases of syphilis for the rural districts, namely, a decrease from 17.1 per cent in 1921 to 7.5 per cent in 1925. The following table will show the consistent decrease in the proportion of total cases classified as rural.

Per Cent of Total Cases in Rural Districts

	Gonorrhea	Syphilis
1921	19.5	17.1
1922	16.7	15.5
1923	12.4	10.5
1924	12.0	9.5
1925	9.8	7.5

Not only has the percentage of the total cases decreased, but the absolute number of cases has fallen off materially. The number of cases of gonorrhea dropped from 759 in 1921 to 452 in 1925, and for syphilis from 1,667 in 1921 to 980 cases in 1925. During this same period, the absolute number of cases for the urban districts has increased 33 1/3 per cent in the cases of gonorrhea and 50 per cent in the case of syphilis.

Trichinosis.

Recently, there occurred in Syracuse and Rochester several cases of trichinosis. Dr. Silverman, director of the Bureau of Communicable Diseases of the Syracuse Department of Health, stated that there had been five mild cases in that city. Four of these occurred in one family, the diagnosis having been made on clinical symptoms and eosinophilia. In the other case trichinae were found in the blood. Three of the cases were first reported as typhoid suspects. Sausages were suspected as the source of infection, but examination of the suspect material was negative.

Dr. G. W. Goltsch reported a similar case of trichinosis in Ithaca. The diagnosis had been made on clinical findings and eosinophilia. In one case the blood stream contained trichinae. In three cases the patients had eaten raw ham from a market. In two cases the patients had eaten sausages at a social trip. Pork was found with five trichinae.



LEGISLATION



HENRY L. K. SHAW, M.D.
Chairman Committee on Legislation

MEETING OF CHAIRMEN OF COUNTY LEGISLATIVE COMMITTEES

A meeting and conference of the Chairmen of the Legislative Committees of the County Medical Societies was held at noon on Wednesday, February 10, in the Ten Eyck Hotel, Albany. Dr. H. L. K. Shaw, Chairman of the Committee on Legislation of the Medical Society of the State of New York, presided. Although the weather was inclement and a snowstorm was raging, delegates were present from all parts of the State, representing approximately the same number of counties as in previous years.

The conference began with a luncheon at which the committeemen became acquainted with one another and received preliminary information on the political situation in respect to medical bills. After the luncheon Dr. Shaw introduced Hon. Frank H. Lattin, Chairman of the Assembly Committee in Public Health, Hon. Charles P. Miller, Chairman of the Assembly Committee on Labor and Industry, and Hon. R. H. Loomis, who will sponsor the Medical Practice Act in the Assembly, Mr. Lloyd P. Stryker, Counsel of the Medical Society of the State of New York, Dr. N. B. Van Etten, President of the State Society, and Dr. Augustus Downing, Assistant Commissioner of Education.

The principal object of the conference was the discussion of legislative bills which were related to public health. A typewritten memorandum of thirty-seven bills, with brief comments on their nature, was given to each member. Many of the bills were almost identical with those of last year. Fifteen related to workmen's compensation, and five to cult practice. The memorandum is printed on page 204 of this Journal.

A large part of the conference was devoted to the consideration of the Practice of Medicine bill. This bill was drawn by a special committee which was authorized by the House of Delegates in 1925 for the special purpose of creating a bill which should represent the desires of the doctors of New York State. The committee held meetings almost weekly during the Summer and early Fall, and its members agreed on certain broad principles which the physicians wished to put into effect. The bill that was written by the committee of doctors was printed in the November 1, 1925, issue of this Journal. After the doctors had completed the first draft, the bill was submitted to the Counsel of the State Medical Society and then to the regents of the State of New York, both of whom made suggestions and changes in order to adapt the bill

to the law, the Constitution, and to the established customs and methods of administration. However, nearly all the main features of the bill were left intact, and the finished product is the combined work of the doctors, the lawyers, and the Education Department. The revised bill is printed on page 208 of this Journal.

Several physicians representing sections that were opposed to registration in former years spoke in favor of the bill. At the end of the discussion a motion was made that the conference support the Practice of Medicine bill as it was presented and the motion was carried.

Dr. Shaw announced that the Practice of Medicine bill will be introduced in the Legislature within a few days. The special features of this bill are as follows:

- (a) Registration annually while in practice,
- (b) Legality of license not to be affected by failure to register,
- (c) Clear definition as to who may practice and when, while not licensed in the State,
- (d) Doctor of Medicine never to be conferred as an honorary title,
- (e) Penalties—Use of title "Doctor" to be limited to physicians,
- (f) Attorney General to prosecute violators,
- (g) Grievance Committee Professional barrier to help the physician protect himself against blackmail.

A large part of the time of the conference was devoted to a discussion of the Workmen's Compensation bill, Assembly Introductory Number 65, Concurrent Senate Introductory Number 35 known as the Miller Bill. This bill embodies the suggestions of Dr. W. W. Britt, Chairman of the Committee on Economics, and Dr. H. P. Hourigan, Chairman of the special committee on Workmen's Compensation. These two doctors consulted with Hon. Charles P. Miller, Chairman of the Assembly Committee on Labor and Industry, who is a recognized authority on workmen's compensation, and the three have devised a law which should meet the doctors' objections of the present methods of settling compensation cases. The bill amends the present Labor Law by creating four authoritative bodies.

- 1 A State Medical Advisory Council of five members
- 2 District Medical Advisory Councils, each of five members
- 3 A State Medical Director and a Deputy Director
- 4 Medical examiners

The State Medical Advisory Council and the District Councils shall hear and adjudicate cases in which there is a dispute regarding medical conditions and findings. The present method is that lay boards shall hear and pass upon conditions which are purely medical, and in doing so, physicians are heard first on one side and then on the other and the boards decide between medical opinions which are often conflicting. The new law provides the machinery by which medical men shall decide questions of medicine, and will thereby prevent the dissatisfaction which doctors often express regarding the medical decisions of lay boards.

Dr Hourigan explained the provisions of the proposed law and urged the physicians to accept a share of the responsibility of the administration of the Workmen's Compensation law, especially in deciding whether or not one man is right and another is wrong on a medical question affecting compensation.

The administration of the Workmen's Compensation law will be further clarified by the passage of Assembly Introductory Bill Number 515 and Senate Introductory Bill Number 250. This bill creates a Board of Review and a Council of Industrial Standards and Appeals. The two bodies are made responsible for rules and regulations regarding the administration of the Workmen's Compensation Law, and for the execution of the law and unifying the existing procedures. This bill will do for Workmen's Compensation cases generally what the Miller Bill will do for the medical phases of the cases.

MEMORANDUM OF BILLS SUBMITTED TO THE CONFERENCE OF CHAIRMEN OF COUNTY LEGISLATIVE COMMITTEES

FIFTEEN WORKMEN'S COMPENSATION BILLS

MEDICAL COUNCILS

Assembly Introductory No 65—concurrent Senate Introductory No 35—known among us as the Miller Bill, attempts to reorganize the medical division of the Department of Labor and Industries by providing for the appointment of a director and deputy director, a State council and district councils—who shall have complete charge of all medical work. Those appointed to any the above positions shall be selected from a list of candidates named by the Medical Society of the State of New York. Opposition to this bill is slow in developing, probably there will not be a great deal. Dr Britt, chairman of the Committee on Economics, and Dr Hourigan, chairman of the special Committee on Workmen's Compensation, collaborated with Assemblyman Miller in drafting this bill.

PERCENTAGES OF LOSS OF EYESIGHT

Assembly Introductory No 331—concurrent Senate Introductory No 184 and Assembly Introductory No 364—concurrent Senate Introductory No 141—provide for the proper determination of the percentage of loss of efficiency of eyesight. In No 331, Assemblyman Miller has incorporated the recommendations of the special committee appointed by the American Medical Association to devise the best way of determining the method of computing the degree of loss in sight efficiency due to eye injuries.

CONDITIONS OF COMPENSATION

Assembly Introductory No 18 would amend the present law so as to make compensation available only where the injuries arise in the duties. The law now reads, "out of and in."

LIST OF DISABLING DISEASES

Assembly Introductory No 79—concurrent Senate Introductory No 465—adds to the list of specified disabling diseases a general clause stating that persons suffering from any and all disabling diseases and disabling illnesses, and while occupied in any and all employments enumerated before, shall be eligible to compensation.

TIME FOR REPORTING CLAIMS

Assembly Introductory No 231—concurrent Senate Introductory No 110—would amend the law removing the stipulation which made it absolutely necessary that claim for medical or surgical treatment be reported within twenty days following the first treatment.

BENZINE POISONING

Assembly Introductory No 235—concurrent Senate Introductory No 98—would add to the list of occupational diseases such as may occur from poisoning by benzine or any of its derivatives.

COAL TAR POISONING

Assembly Introductory No 236—concurrent Senate Introductory No 99—would add poisoning by coal tar or any of its derivatives to the list of occupational diseases.

SILICOSIS

Assembly Introductory No 245—concurrent Senate Introductory No 118—adds the Miller silicosis bill of last year, and would add silicosis to the list of occupational diseases.

MEDICAL COSTS

Assembly Introductory No 251—concurrent Senate Introductory No 106—provides that the term "compensation" shall be interpreted to include medical costs

TIME FOR MAKING CLAIMS

Assembly Introductory No 254—concurrent Senate Introductory No 120—describes how a claim may be entered even at the expiration of two years

PERCENTAGE OF DISABILITY

Assembly Introductory No 279—concurrent Senate Introductory No 143—defines how the percentage of loss in efficiency of an arm shall be determined when a finger is removed

CONSENTS FOR MEDICAL SERVICES

Assembly Introductory No 283—concurrent Senate Introductory No 138—would amend the law by deleting that portion which made it necessary for the employee to consult the employer before securing medical attention and requiring the physician to furnish the employer and the industrial commissioner a report of such injury within twenty days of the time of the first treatment—and by inserting a section authorizing the employee to secure medical, surgical or other attendance or treatment, nurse and hospital service, medicine, crutches and apparatus, without consulting the employer in such service is required immediately and the employer is not available. It further requires that expenses incurred in such way must be paid by the employer

COMPENSABLE DISABILITIES

Assembly Introductory No 368—concurrent Senate Introductory No 147—would add to the present law, in which 19 occupational diseases are mentioned, a clause including all other occupational diseases not before enumerated as included with those for which compensation may be paid

BOARD OF REVIEW AND COUNCIL OF INDUSTRIAL STANDARDS AND APPEALS

Assembly Introductory No 515—concurrent Senate Introductory No 250—aims to amend

the Labor Law generally by abolishing the Industrial Board and creating a Board of Review for Workmen's Compensation and a Council of Industrial Standards and Appeals. The Board of Review for Workmen's Compensation shall consist of five members appointed by the Governor, one of whom shall be designated by the Governor as chairman. It shall have the power to make, amend and repeal rules governing the practice and procedure under the Workmen's Compensation Law. On application of any party, or on its own motion, it may review and determine all claims for compensation, and shall have power to require medical service for injured employees, to approve claims for medical service or attorney's fees, etc. The Council of Industrial Standards and Appeals shall consist of a councilor and two other members appointed by the Board of Review for Workmen's Compensation. It shall have power to make, amend and repeal rules for carrying into effect the provisions of this chapter, to test materials, to approve or disapprove devices, apparatus, or machinery guards, to make such investigations or inquiries as may be necessary for the proper performance of its duties, to suggest amendments to the law to the commissioner

RECOVERING COSTS OF TREATMENT

Assembly Introductory No 613 would amend the Workmen's Compensation Law by providing that an injured employee shall be entitled to recover, as part of the compensation, all reasonable amounts expended for medical, surgical or other attendance or treatment, nurses and hospital service, medicine, crutches and apparatus, providing the physician furnish to the employer and the industrial commissioner, within twenty days following the first treatment, a report of the injury and treatment. Also providing that if the injured employee fails for a period of five days to provide for himself such medical, surgical or other attendance, the employer shall promptly thereafter provide for the same

FIVE CULTIST BILLS

THE ESMOND CHIROPRACTIC BILL

Assembly Introductory No 153 is the Esmond Chiropractic bill. You will note that Esmond has endeavored to make his bill acceptable by providing that, in the future, none shall be licensed to practice chiropractic unless he takes an examination in the fundamental branches under the Board of Regents at the same time that those seeking a license for the practice of medicine are examined. This bill has two outstanding faults, the first point will be attacked

by the osteopaths, because they are obliged to show 28 months of study in four years, while Esmond has provided for only 24 months. The bill is attacked by all of us. He claims that his bill will exempt from examination but 30 chiropractors. The Fearon bill last year claimed that it would exempt fewer than 200, and Mr Esmond feels, therefore, that his bill should be more acceptable than the Fearon bill was. Of course, there is a great doubt as to whether Esmond knows how many men would be eligible for such

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use by licensed pharmacists or druggists of any regular preparation containing alcohol other than whiskey and brandy

INCOME TAX

Assembly Introductory No 376—concurrent Senate Introductory No 85—would amend the Tax Law, allowing the deduction from income of all expenses paid or incurred during the taxable year for medical, surgical, or dental services, unless the net income exceeds \$5,000 00

EDUCATION DEPARTMENT

Senate Introductory No 411 is a reintroduction of a bill that was submitted by the Department of Education last year. It was revised toward the end of the year, and this is an exact reproduction of the latest revision

ENDORSEMENT OF PHYSICIANS' LICENSES

Assembly Introductory No 132 provides that persons having received a license in another State after graduation from a registered medical school prior to August 1, 1900, and have practiced their profession in another State or States for fifteen years or more, shall, without further examination on payment of \$25 00 to the Regents, receive endorsement of their licenses to practice in this State

DEPARTMENT OF HEALTH DIVISION OF RURAL HYGIENE

Assembly Introductory No 327—concurrent Senate Introductory No 49—provides for the creation in the Department of Health of a Division of Rural Hygiene and appropriates \$10,000 00 for that purpose. It is our understanding that this bill originated with the Grange. It was introduced last year and, although it failed of passage, there was no noticeable opposition to it

HEALTH OFFICERS

Assembly Introductory No 389 was introduced by the Department of Health and would amend the law concerning the duties of health officer, allowing him compensation for special duties such as caring for epidemics and also the taking of cultures for releasing cases of diphtheria, and would further amend it by inserting a clause permitting the health officer to appoint a substitute to serve as acting health officer during the time of his incapacitation or absence from office

EYE GLASSES FOR SCHOOL CHILDREN

Assembly Introductory No 497 would oblige the school board or other proper authority to provide, free of charge, eye glasses for children found to need them and who are not able to pay for the same. Last year Mr Mandelbaum introduced this bill as an amendment to the Greater New York charter and to apply to New York City alone but it failed of passage and this year he has introduced it as an amendment to the Education Law, making it State wide

MEDICAL EXAMINATIONS OF PRISONERS IN COUNTY JAILS

Assembly Introductory No 552—concurrent Senate Introductory No 375—This bill originated with the Prison Commission. For more than five years the Prison Commission has been endeavoring to secure the examination of prisoners when entered to the county jails. A stimulus for this came from the venereal and tuberculosis campaigns, but it has gradually developed until at present the Commission thinks that every person entered to a county jail should receive the same sort of careful physical examination as is given those entered to the penitentiaries, Ossining or Auburn. The bill will very likely develop considerable opposition from the county authorities, because it will mean that the physician appointed for that work will want a definite increase in his salary. At the present time some are paid as little as \$50 00 a year and, of course, they give only such attention as is absolutely required, but in the last couple of years some supervisors have been persuaded to increase the salary of the physicians with the understanding that they will undertake this additional work. It will be expected that these counties will support the move, but they are a small minority. The principal opposition to the bill will very likely be based on economy

PREVENTION OF HEREDITARY BLINDNESS

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use by licensed pharmacists or druggists of any regular preparation containing alcohol other than whiskey and brandy

INCOME TAX

Assembly Introductory No 376—concurrent Senate Introductory No 85—would amend the Tax Law, allowing the deduction from income of all expenses paid or incurred during the taxable year for medical, surgical, or dental services, unless the net income exceeds \$5,000 00

EDUCATION DEPARTMENT

Senate Introductory No 411 is a reintroduction of a bill that was submitted by the Department of Education last year. It was revised toward the end of the year, and this is an exact reproduction of the latest revision

ENDORSEMENT OF PHYSICIANS' LICENSES

Assembly Introductory No 132 provides that persons having received a license in another State after graduation from a registered medical school prior to August 1, 1900, and have practiced their profession in another State or States for fifteen years or more, shall, without further examination on payment of \$25 00 to the Regents, receive endorsement of their licenses for practice in this State

DEPARTMENT OF HEALTH DIVISION OF RURAL HYGIENE

Assembly Introductory No 327—concurrent Senate Introductory No 49—provides for the creation in the Department of Health of a Division of Rural Hygiene and appropriates \$10,000 00 for that purpose. It is our understanding that this bill originated with the Grange. It was introduced last year and, although it failed of passage, there was no noticeable opposition to it

HEALTH OFFICERS

Assembly Introductory No 389 was introduced by the Department of Health and would amend the law concerning the duties of health officer, allowing him compensation for special duties such as caring for epidemics and also the taking of cultures for releasing cases of diphtheria, and would further amend it by inserting a clause permitting the health officer to appoint a substitute to serve as acting health officer during the time of his incapacitation or absence from office

EYE GLASSES FOR SCHOOL CHILDREN

Assembly Introductory No 497 would oblige the school board or other proper authority to provide, free of charge, eye glasses for children found to need them, and who are not able to pay for the same. Last year Mr Mandelbaum introduced this bill as an amendment to the Greater New York charter and to apply to New York City alone but it failed of passage and this year he has introduced it as an amendment to the Education Law, making it State wide

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medical study the *preliminary* general education required by the rules of the regents [preliminary to receiving the degree of bachelor or doctor of medicine in this state], *except where the application is for a license to practice osteopathy, in which case he must have had the general education required by the rules of the regents preliminary to receiving the degree of doctor of osteopathy,*

4 Had studied medicine not less than four school years, including four satisfactory courses of at least eight months each in four different calendar years in a medical school registered as maintaining at the time a standard satisfactory to the regents. In lieu of the first two years of such medical course, the regents may accept evidence of graduation with the degree of bachelor or doctor of dental surgery from a registered dental school in which the requirements for admission were the same as those prescribed for a registered medical school, and in which the course of instruction included all of the minimum requirement prescribed for the first two years of the course in a registered medical school. New York medical schools and New York medical students shall not be discriminated against by the registration of any school out of the state whose minimum graduation standard is less than that fixed by statute for New York medical schools. The regents may, in their discretion, accept as the equivalent for any part of the third and fourth requirements, evidence of five or more years' reputable practice, provided that such substitution be specified in the license, and, as the equivalent of the first year of the fourth requirements, evidence of graduation from a registered college course, provided that such college course shall have included not less than the minimum requirements prescribed by the regents for such admission to advanced standing. The regents may also in their discretion admit conditionally to the examination in anatomy, physiology and chemistry, applicants nineteen years of age, certified as having studied medicine not less than two years, including two satisfactory courses of at least eight months each, in two different calendar years, in a medical school registered as maintaining at the time a standard satisfactory to the regents, provided that such applicants meet the second and third requirements of this section (),

5 Has (either) received the degree of bachelor or doctor of medicine from some (registered) medical school in this country or Canada, *registered as maintaining at the time a standard satisfactory to the regents* or (the) a medical degree (of doctor of medicine) from a medical school in a foreign country maintaining a standard not lower than that prescribed for medical schools in this state or a license to practice medicine in a foreign country issued under requirements not lower than those exacted for a medical license in this state unless admitted conditionally to the examinations as specified above

The degree of bachelor or doctor of medicine shall not be conferred in this state before the candidate has filed with the institution conferring it the certificate of the regents that before beginning the first annual medical course counted toward the degree, he had earned a medical student qualifying certificate in accordance with the rules of the regents [the minimum requirement for which, for matriculates after January first, nineteen hundred and seventeen, shall be the successful completion of an approved four-year high school course or its equivalent]

6 Where the application be for a license to practice osteopathy, the applicant shall produce evidence that before nineteen hundred and ten he has studied osteopathy not less than three years, including three satisfactory courses of not less than nine months each in three different calendar years in a college of osteopathy maintaining at the time a standard satisfactory to the regents. [After] or that after nineteen hundred and ten [the applicant for a license to practice under this article shall produce evidence that] he has studied not less than four years including four satisfactory courses of not less than eight months each in four different calendar years in a college maintaining at the time a standard satisfactory to the regents

Section 4 Section one hundred and sixty-seven of such chapter as amended by Chapter four hundred and ninety-six of the laws of nineteen hundred and twenty-three is hereby amended to read as follows

Section 167 Questions The board shall submit to the regents, as requested, lists of suitable questions for thorough examination in anatomy, physiology, hygiene, chemistry, surgery, obstetrics, gynecology, pathology (including) bacteriology, and (diagnosis) *diagnosis*. From these lists the regents shall prepare question papers for all these subjects, which at any examination shall be the same for all candidates, except that the examination may be divided as provided in section one hundred and sixty-six

Section 5 Section one hundred and sixty-nine of such Chapter as last amended by Chapter two hundred and eighty-two of the laws of nineteen hundred and twenty-four is amended to read as follows

Section 169 Licenses On receiving from the state board an official report that an applicant has successfully passed the examinations and is recommended for license, the regents shall issue to him a license to practice according to the qualifications of the applicant. Every license shall be issued by the university under seal and shall be signed by the president and secretary of the board and by the officer of the university who approved the credential which admitted the candidate to examination and shall state that the licensee has given satisfactory evidence of fitness as to age, character, preliminary and medical

THREE BILLS ON THE DISPOSAL OF TUBERCULOUS ANIMALS

Assembly Introductory No 72 would amend the Farms and Markets Law providing against the removal or slaughter of animals known to be infected with tuberculosis, except under the supervision of the Commissioner of Farms and Markets

Assembly Introductory No 73 offers an amendment to the Penal Law making it a felony for any person to sell knowingly, except under the supervision of the Commissioner of Farms and Markets, any bovine animal in which tuberculosis shall have been indicated as a result of the tuberlin test

Assembly Introductory No 681 would amend section 81, Farms and Markets Law, by providing tubercular animals shall not be removed from premises where examined, except for slaughter within county where owner resides, under proper supervision

BACTERIAL COUNTS OF MILK

Assembly Introductory No 76 would amend the Farms and Markets Law, providing that all persons making bacterial counts of milk and cream must be licensed by the Commissioner of Farms and Markets. The license shall be obtained by examination and may extend for five years before renewal

THE NEW PRACTICE OF MEDICINE ACT

Int 955

IN ASSEMBLY,

February 16, 1926

Introduced by Mr Loomis—read once and referred to the Committee on Public Health

AN ACT*

To amend the public health law, in relation to the practice of medicine

The People of the State of New York, represented in Senate and Assembly do enact as follows

Section 1 Section one hundred and sixty-one of chapter forty-nine of the laws of nineteen hundred and nine, entitled, "An act in relation to the public health, constituting chapter forty-five of the consolidated laws," as amended by Chapter three hundred and nineteen of the laws of nineteen hundred and fourteen, is hereby amended to read as follows

Section 161 QUALIFICATIONS No person shall practice medicine unless registered and legally authorized prior to September first, eighteen hundred and ninety-one, or unless licenced by the regents and registered under article eight of chapter six hundred and sixty-one of the laws of eighteen hundred and ninety-three and acts amendatory thereto, or unless licensed by the regents and registered as required by this article, nor shall any person practice under this article who has ever been convicted of a felony by any court, or whose authority to practice is suspended or revoked by the regents (on recommendation of the state board). The conviction of a felony shall include the conviction of any offense which if committed within the State of New York would constitute a felony under the laws thereof. If a person convicted of a felony is subsequently pardoned by the governor of the state where such conviction was had, or by the President of the United States, the regents, may, in their discretion, on application of such person, and on the submission to them of satisfactory evidence, restore to such person the right to practice medicine in this state, unless such conviction has been for misconduct in his professional capacity

Section 2 Section one hundred and sixty-four

of such Chapter is hereby amended to read as follows

(Section 164 EXPENSES The fees derived from the operation of this article shall be paid into the state treasury, and the legislature shall annually appropriate therefrom for the education department an amount sufficient to pay all proper expenses incurred pursuant to this article)

Section 164 EXPENSES Notwithstanding the provisions of any other general, local or special law, all fees, fines, penalties and other moneys derived from the operation of this article shall be paid to the regents of the university and shall be available, together with the appropriations made from time to time by the legislature, for the payment of all proper expenses of the board, including the salaries of the secretary of the board of medical examiners and his assistants, inspectors, examiners, any deputy attorney-general assigned for the purpose of enforcing the provisions of this article, and other employees, and their necessary disbursements including the disbursement on bills duly rendered and audited for the administration of the committee on grievances. The unexpended balance of all such fees, fines, penalties and other moneys derived from the operation of this article remaining on December thirty-first of each year shall be paid into the state treasury

Section 3 Section one hundred and sixty-six of such chapter as last amended by Chapter two hundred and eighty-two of the laws of nineteen hundred and twenty-four is hereby amended to read as follows

Section 166 Admission to Examination The regents shall admit to examination any candidate who pays a fee of twenty-five dollars and submits evidence, verified by oath, and satisfactory to the regents, that he

1 Is more than twenty-one years of age and a citizen of the United States or has declared his intention of becoming such citizen (),

2 Is of good moral character (),

3 Had prior to beginning the first year of

of medicine, or annul his registration, or do both, in any of the following cases

(a) A practitioner of medicine who is guilty of any fraud or deceit in his practice, or who is guilty of a crime or misdemeanor, or who is guilty of any fraud or deceit by which he was admitted to practice, or

(b) Is an habitual drunkard or habitually addicted to the use of morphine, opium, cocaine, or other drugs having a similar effect, or

(c) Who undertakes or engages in any manner or by any ways or means whatsoever to procure or perform any criminal abortion as the same is defined by Section eighty of the penal law or

(d) Who offers or undertakes by any manner or means to violate any of the provisions of Section eleven hundred and forty-two of the penal law

Proceedings for revocation of a license or the annulment of registration shall be begun by filing a written charge or charges against the accused. These charges may be preferred by any person or corporation, or the regents may on their own motion direct the executive officer of the board of regents to prefer said charges. Said charges shall be filed with the executive officer of the board of regents, and a copy thereof filed with the secretary of the board of medical examiners. The board of medical examiners, when charges are preferred, shall designate three of their number as a committee to hear and determine said charges. A time and place for the hearing of said charges shall be fixed by said committee as soon as convenient, and a copy of the charges, together with a notice of the time and place when they will be heard and determined, shall be served upon the accused or his counsel at least ten days before the date actually fixed for said hearing. Where personal service or service upon counsel cannot be effected, and such fact is certified on oath by any person duly authorized to make legal service, the regents shall cause to be published for at least seven times, for at least twenty days prior to the hearing, in two daily papers in the county in which the physician was last known to practice, a notice to the effect that at a definite time and place a hearing will be had for the purpose of hearing charges against the physician upon an application to revoke his license. At said hearing the accused shall have the right to cross-examine the witnesses against him and to produce witnesses in his defense, and to appear personally or by counsel. The said committee shall make a written report of its findings and recommendations, to be signed by all members, and the same shall be forthwith transmitted to the executive officer of the board of regents. If the said committee shall unanimously find that said charges, or any of them, are sustained, and shall unanimously recommend that the license of the accused be revoked or his

registration be annulled, the regents may thereupon in their discretion revoke said license or annul said registration, or do both. If the regents shall annul (such) a physician's registration or revoke his license they shall forthwith transmit to the clerk of the county or counties in which said (accused) physician is registered (as a physician) a certificate under their seal, certifying that such registration has been annulled or license revoked, and said clerk shall, upon receipt of said certificate, file the same and forthwith mark said registration "annulled." Any person who shall practice medicine after his registration has been marked "annulled" shall be deemed to have practiced medicine without registration. Where the license of any person has been revoked, or his registration has been annulled, as herein provided, the regents may after the expiration of one year, entertain an application for a new license in a like manner as original applications for licenses are entertained, and upon such new application they may, in their discretion, exempt the applicant from the necessity of undergoing any examination.

2 Every person now lawfully engaged in the practice of medicine within the state and every person hereafter duly authorized to practice medicine, shall, on or before January first of each year, apply to the secretary of the board of medical examiners for a certificate of registration with the regents of the university upon a blank form which shall be furnished by said secretary and shall pay at such time to said secretary a fee of two dollars.

3 A physician in making his first registration hereunder shall write or cause to be written upon the application blank so furnished by said secretary his full name, post office and residence address, the date and number of his license and such other facts for the identification of the applicant as a licensed practitioner of medicine as the regents may deem necessary and shall duly execute and verify the same before an officer empowered to take acknowledgments of deeds and deliver the same to said secretary by mail or in person. Subsequent registrations after the first registration need not be upon a sworn application by the applicant unless in a particular case the regents, for reasons satisfactory to them, may require that the application be under oath. The secretary of the board may employ and use in obtaining such subsequent registrations the assistance of the secretaries of duly incorporated medical societies who shall be empowered as representatives of the secretary of the board to receive and transmit such application blanks from physicians after the physicians' first registration, together with the license fees payable upon such application.

4 The secretary of the board, on or before October first of each year, after the first registration, shall mail or cause to be mailed to every registered physician a blank form of application.

education and all other matters required by law, and that after full examination he has been found properly qualified to practice [Applicants examined and licensed in accordance with the provisions of this act] There shall be issued to applicants who, when admitted to the licensing examination, were citizens of a foreign country, and who had declared intention of becoming citizens of the United States, [shall] upon passing the examination, [be issued] a license [valid for six years from the date of such declaration of intention and] but upon failure of such licensee within six years from the date of such declaration of intention to furnish evidence of his having actually become a citizen his license shall terminate [become invalid and automatically become revoked] and his registration shall be annulled Applicants examined and licensed by other state examining boards registered by the regents as maintaining standards not lower than those provided by this article and applicants who matriculated in a New York State medical school before June fifth, eighteen hundred and ninety, and who received the degree of doctor of medicine from a registered medical school before August first, eighteen hundred and ninety-five, may without further examination, on payment of twenty-five dollars to the regents and on submitting such evidence as they may require, receive from them an indorsement of their licenses or diplomas conferring all rights and privileges of a regents' license issued after examination The commissioner of education may in his discretion on the approval of the board of regents indorse a license or diploma of a physician from another state, *or country*, provided the applicant has met all the preliminary and professional qualifications required for earning a license on examination in this state, has been in reputable practice for a period of ten years, and has reached a position of conceded eminence and authority in his profession Any physician, who was actually engaged in the practice of medicine in this state prior to September first, eighteen hundred and ninety-one, and who failed to register, although eligible to do so at the time, or any physician whose registration is not legal because of some error, misunderstanding or unintentional omission, may on the unanimous recommendation of the state board of medical examiners that he has submitted satisfactory proof of having complied with all the requirements prescribed by law at the time of his failure to register, or his incomplete registration, receive from the regents under seal a certificate of the facts which may be registered *in accordance with this act* (by any county clerk and shall make valid his registration) Before any license is issued it shall be numbered and recorded in a book kept in the regents' office, and its number shall be noted in the license, and a photograph of the licensee filed with the records This record shall be opened to public inspection and in all

legal proceedings shall have the same weight as evidence that is given to a record of conveyance of land

Section 6 Section one hundred and seventy of such chapter is hereby amended to read as follows

Section 170 Registration (Registry, revocation of license, annulment of registry)
 1 Every license to practice medicine shall, before the licensee begins practice thereunder, be registered in a book kept in the clerk's office of the county where such practice is to be carried on, with name, residence, place and date of birth, and source, number and date of his license to practice Before registering, each licensee shall file, to be kept in a bound volume in a county clerk's office, an affidavit of the above facts, and also that he is the person named in such license and had, before receiving the same, complied with all the requirements as to attendance, terms and amount of study and examinations required by law and the rules of the university as preliminary to the conferment thereof, that no money was paid for such license, except the regular fees paid by all applicants therefor, that no fraud, misrepresentation or mistake in any material regard was employed by any one or occurred in order that such license should be conferred Every license, or if lost, a copy thereof legally certified so as to be admissible as evidence, or a duly attested transcript of the record of its conferment, shall, before registering, be exhibited to the county clerk, who, only in case it was issued or indorsed as a license under seal by the regents, shall indorse or stamp on it the date and his name, preceded by the words, "registered as authority to practice medicine in the clerk's office of _____ county" The clerk shall thereupon give to every physician so registered a transcript of the entries in the register with a certificate, under seal, that he has filed the prescribed affidavit The licensee shall pay to the county clerk a total fee of one dollar for registration, affidavit and certificate The regents shall have power at any and all times to inquire into the identity of any person claiming to be a licensed or registered physician, and, after due service of notice in writing, require him to make reasonable proof, satisfactory to them, that he is the person licensed to practice medicine under the license by virtue of which he claims the privilege of this article When the regents find that a person claiming to be a physician, licensed under this article, is not in fact the person to whom the license was issued, they shall record [reduce] their decision in [findings to] writing and file them in the office of the clerk of the county in which said person resides or practices medicine Said [certificate] decision shall be prima facie evidence that the person mentioned therein is falsely impersonating a practitioner or a former practitioner of a like or different name (The regents may revoke the license of a practitioner

tutes, or (2) the practice of medicine in a legally incorporated hospital by a duly appointed member of the resident staff or by an interne while actually serving in a state hospital or other state institution in which medical service is provided, or (3) the practice of medicine by any physician duly licensed to practice medicine in a neighboring state, who resides near a border of such neighboring state, whose practice extends into this state and who does not open an office or appoint a place to meet patients or receive calls within this state; or (4) any lawfully qualified physician in other states or countries meeting legally registered physicians in this state in consultation, or (5) the furnishing of medical assistance in case of emergency, or (6) the domestic administration of family remedies, or (7) the practice of chiropody, dentistry, veterinary medicine or optometry, provided those practicing are legally authorized and licensed under the laws of this state so to do, or (8) the practice of religious tenets of any church, or (9) the selling of lenses, artificial eyes, limbs or other apparatus or appliances by any person or manufacturer of the same

2 This article shall be construed to repeal all acts or parts of acts authorizing conferment of any degree in medicine causa honoris or ad eundem or otherwise than on students duly graduated after satisfactory completion of a medical course not less than that required by this article as a condition of license

[It is further provided that any person who shall be actively engaged in the practice of osteopathy in the State of New York on the thirteenth day of May, nineteen hundred and seven, and who shall present to the board of regents satisfactory evidence that he is a graduate in good standing of a regularly conducted school or college of osteopathy within the United States which at the time of his or her graduation required a course of study of two years or longer, including the subjects of anatomy, physiology, pathology, hygiene, chemistry, obstetrics, diagnosis, and the theory and practice of osteopathy, with actual attendance of not less than twenty months, which facts shall be shown by his or her diploma and affidavit, shall upon application and payment of ten dollars be granted, without examination, a license to practice osteopathy, provided application for such license be made within six months after the thirteenth day of May, nineteen hundred and seven.] A license to practice osteopathy shall not permit the holder thereof to administer drugs or perform surgery with the use of instruments. Licenses to practice osteopathy shall be registered in accordance with the provisions of this article, and the word osteopath be included in such registration, and such license shall entitle the holder thereof to the use of the degree D O , or doctor of osteopathy

Section 9 Section one hundred and seventy-four of such chapter is hereby amended to read as follows

[174 (Penalties and their collection) Any person who, not being then lawfully authorized to practice medicine within this state and so registered according to law, shall practice medicine within this state without lawful registration or in violation of any provision of this article, and any person who shall buy, sell or fraudulently obtain any medical diploma, license, record or registration, or who shall aid or abet such buying, selling or fraudulently obtaining, or who shall practice medicine under cover of any medical diploma, license, record or registration illegally obtained, or signed, or issued unlawfully or under fraudulent representations or mistake of fact in a material regard, or who, after conviction of a felony, shall attempt to practice medicine, or shall so practice, and any person who shall in connection with his name use any designation tending to imply or designate him as a practitioner of medicine within the meaning of this article without having registered in accordance therewith, or any person who shall practice medicine or advertise to practice medicine under a name other than his own, or any person not a registered physician who shall advertise to practice medicine, shall be guilty of a misdemeanor. Any person who shall practice medicine under a false or assumed name, or who shall falsely personate another practitioner or former practitioner of a like or different name, shall be guilty of a felony. When any prosecution under this article, or under sections eleven hundred and forty-two, eighty, eighty-one, eighty-two, seven hundred and forty-seven of the penal law and any amendments thereto, is made on the complaint of any incorporated medical society of the state, or any county medical society entitled to representation in a state society, any fines collected shall be paid to the society making the complaint, and any excess of the amount of fines so paid over the expense incurred by the said society in enforcing the medical laws of this state shall be paid at the end of the year to the county treasurer.]

174 Penalties

1 Any person who shall

(a) Sell or fraudulently obtain or furnish any medical or osteopathic diploma, license, record, or registration, or aid or abet in the same, or

(b) Practice medicine under cover of any diploma, license, record or registration illegally or fraudulently obtained or signed or issued unlawfully or under fraudulent representation or mistake of fact in a material regard, or

(c) Advertise to practice medicine under a name other than his own or under a false or assumed name, and

2 Any person who not being then lawfully licensed and authorized to practice medicine within this state shall

(a) Practice or advertise to practice medicine, or

(b) Use in connection with his name any de-

for registration addressed to the last known post-office address of such physician or may cause such blank form of application to be sent to such physicians through the secretary of any duly incorporated medical society. The form of application shall be such as to contain proper spaces for the insertion by the applicant of the information required under paragraph two of this section.

5 The secretary of the board shall issue to any duly licensed physician in this state, upon his application therefor in accordance with the provisions hereof, a certificate of registration under seal of the university for the year ensuing and ending December thirty-first.

Upon the first of March in each year, or within ten days thereafter, the secretary of the board shall publish and cause to be mailed to each physician registered hereunder in this state a printed list of the duly registered physicians in this state, and each such published list shall contain at the beginning thereof these words:

"Each registered physician receiving this list is requested to report to the secretary of the board and to the secretary of any duly incorporated county medical society existing in the county of his residence or to the secretary of any incorporated state medical society in which said county medical society is represented, the name and address of any person known to be practicing medicine whose name does not appear in this registry. The names of persons giving such information will not be divulged."

The names of physicians which shall in any year be added to said list after the same shall have been so printed and distributed as aforesaid, shall be reported quarterly on request to the secretary of any duly incorporated state medical society of which county medical societies are components.

6 Any licensed physician who fails or neglects to register by January first of any year as required by the provisions of this section shall be required to pay for registration, in addition to the fee of two dollars, a further fee of one dollar for each thirty days or part thereof that he is in default, and any licensed physician who wilfully refuses or omits to register hereunder and engages in practice shall be subject to a civil penalty of one dollar for each day that such practice shall continue, and if the same continues for more than thirty days the penalty thereafter shall be five dollars per day so long as the said practice shall continue, said penalty shall be recoverable in an action by the attorney-general of the state maintained in the name of the people of the State of New York.

7 The penalties provided in this section for failure, neglect or omission of a duly licensed physician to register under this article shall be the only penalties that may be imposed therefor, and the legality of his license shall not be affected

thereby, and such penalties may for good cause shown, in the discretion of the regents, be remitted or compromised.

8 Each licensed physician shall conspicuously display his proper registration certificate in his office at all times.

Section 7 Section one hundred and seventy-one of such chapter, as amended by chapter fifty-three of the laws of nineteen hundred and fifteen, is hereby repealed.

Section 8 Section one hundred and seventy-three of such chapter as last amended by Chapter two hundred and eighty-two of the laws of nineteen hundred twenty-four is hereby amended to read as follows:

(173) Construction of this Article. (This article shall not be construed to affect commissioned medical officers serving in the United States army, navy or marine hospital service while so commissioned, or any one while actually serving on the resident medical staff of any legally incorporated hospital, or any one while actually serving as an interne in a state hospital or other state institution in which medical service is provided, or any legally registered dentist exclusively engaged in practicing dentistry, or any person or manufacturer who mechanically fits or sells lenses, artificial eyes, limbs, or other apparatus or appliances, or is engaged in the mechanical examination of eyes for the purpose of constructing or adjusting spectacles, eyeglasses and lenses, or any lawfully qualified physician in other states or countries meeting legally registered physicians in this state in consultation, or any physician residing on a border of a neighboring state and duly licensed under the laws thereof to practice medicine therein, whose practice extends into this state and who does not open an office or appoint a place to meet patients or receive calls within this state, or any physician duly registered in one county called to attend isolated cases in another county, but not residing or habitually practicing therein, or the furnishing of medical assistance in case of emergency, or the domestic administration of family remedies, or the practice of chiropody or the practice of the religious tenets of any church. This article shall be construed to repeal all acts or parts of acts authorizing conformant of any degree in medicine *causa honoris* or *ad eundem* or otherwise than on students duly graduated after satisfactory completion of a preliminary medical course, nor less than required by this article as a condition of license.)

1 This article shall not be construed to prevent the following: (1) The practice of medicine in this state in obedience with the requirements of the laws of the United States of any commissioned medical officer serving in the United States army, navy, or public health service while engaged in the performance of the actual duties prescribed for him under the United States sta-

(d) That a physician is guilty of untrue, fraudulent, misleading or deceptive advertising, or advertising that he can cure or treat disease by a secret method, procedure, treatment or medicine, or that he can treat operate and prescribe for any human condition by a method, means or procedure which he refuses to divulge upon demand to the committee on grievances, or

(e) That a physician did undertake or engage in any manner or by any ways or means whatsoever to procure or to perform any criminal abortion and or to violate section eleven hundred and forty-two of the penal law

Section 11 Such chapter is hereby amended by adding thereto a new section to be section one hundred and seventy-four-b, to read as follows

174b Procedure in Disciplinary Proceedings Within sixty days after this act shall take effect there shall be appointed in accordance with the provisions hereof a committee which shall be known as the committee on grievances, which shall consist of ten members who shall be appointed by the regents in accordance with the provisions thereof

1 The term of office of each of said members of said committee shall be five years, except that upon the taking effect of this act two members shall be appointed whose terms shall expire December thirty-first, nineteen hundred and twenty-seven two members whose terms shall expire December thirty-first, nineteen hundred and twenty-eight, two members whose terms shall expire December thirty-first, nineteen hundred and twenty-nine, two members whose terms shall expire December thirty-first, nineteen hundred and thirty, and two members whose terms shall expire December thirty-first, nineteen hundred and thirty-one, and as such terms expire they shall be filled by the addition to said committee of two members whose terms shall be five years from the expiration of the terms of their predecessors In the case of a vacancy at any time, by resignation, death or otherwise in the membership of the committee, the said vacancy shall be filled for the unexpired term in the same manner as provided for in the original selection of such member

2 Any duly incorporated state medical or osteopathic society having two hundred or more members may nominate candidates for members of such committee, not to exceed three nominations for each member of such committee to which such society shall be entitled hereunder When the candidates are so nominated, the regents shall appoint for the terms specified herein as they shall determine, said members of the said committee, so that said committee shall consist of four members who have been duly nominated by the medical society of the State of New York, two members by the New York State Homeopathic Society one member by the New

York State Osteopathic Society, and the regents, upon their own nomination, shall appoint three members of conspicuous professional standing Each member of the said committee shall be a duly licensed physician of this state

3 The members of said committee shall serve without a compensation and shall annually, within ten days after the first day of January of each year, organize by the election of a chairman and a secretary

4 The members of said committee shall have jurisdiction to hear all charges against duly licensed physicians of this state for violation of the provisions of section one hundred and seventy-four hereof, except subdivision 2, clause (b), and upon such hearing the said committee shall determine the said charges upon their merits, and the regents shall, after due notice and hearing, upon the receipt from said committee of the record, findings and determination of said committee wherein and whereby such practitioner has been found guilty, in their discretion revoke and annul his license, annul his registration, suspend him from practice, or reprimand or otherwise discipline him. Proceedings against any practitioner under this section shall be begun by filing a written charge or charges against the accused These charges may be preferred by any person, corporation or public officer, and they shall be filed with the secretary of the committee on grievances, and said secretary shall forward to the executive officer of the regents a copy of such charges in all cases in which said committee shall deem a trial necessary The chairman of said committee, when charges are preferred may designate one or more of the members of said committee, including at least one member who represents the same school of practice as the physician against whom the charges are preferred, to hear and report upon said charges to said committee The time and place of the hearing of such charges shall be fixed by the secretary of the committee as soon as convenient and a copy of the charges, together with a notice of the time and place when they will be heard shall be served upon the accused or his counsel at least ten days before the date actually fixed for said hearing Where personal service or service upon counsel after due diligence cannot be effected and such fact is certified on oath by any person duly authorized to make legal service, the secretary of the said committee shall cause to be published for four times, at least thirty days prior to the hearing, a notice of the hearing in a newspaper published in the county in which the physician was last known to practice, and a copy of such notice shall also be mailed to the accused at his last known address All such notices of hearing of charges shall contain a plain and concise statement of the material facts without unnecessary repetition, but not the evidence by which the charges are to be proved with a notification that a stenographic record of

signation tending to imply or designate him as a practitioner of medicine, or

(c) Use the title "doctor" or any abbreviation thereof in connection with his name or with any trade name in the conduct of any occupation or profession involving or pertaining to the public health or the diagnosis or treatment of any human disease, pain, injury, deformity or physical condition unless duly authorized by law to use the same, and

3 Any person who during the time his license to practice medicine shall be suspended or revoked, or who shall be convicted of a felony shall practice medicine, shall be guilty of a misdemeanor

Such misdemeanor shall be punishable by imprisonment for not more than one year or by a fine of not more than five hundred dollars, or by both such fine and imprisonment for each separate violation and for a second offense shall be punishable by both such fine and imprisonment

4 All courts of special sessions within their respective territorial jurisdictions are hereby empowered to hear, try and determine such crimes without indictment and to impose in full the punishments or fines and imprisonments herein prescribed

Such misdemeanors shall be prosecuted by the attorney-general in the name of the people of the state, provided, however, that nothing in this section shall be interpreted to prevent or impede the prosecution of such proceedings by the district attorney of any county having a population of five hundred thousand or more, when such proceedings shall have been initiated by him

5 The display by any person of a sign or an advertisement bearing a name as a practitioner of medicine in any manner or by implication or containing any other matter forbidden by law shall be presumptive evidence in any prosecution or hearing of a holding out and of the practice of medicine by such person for each separate day such sign or advertisement is anywhere displayed by anyone, but such presumptions are rebuttable by the defense It shall be necessary to prove in any prosecution or hearing under this article only a single act prohibited by law or a single holding out or an attempt without proving a general course of conduct, in order to constitute a violation

6 In any action for damages for personal injuries or death against a person not licensed hereunder for any act or acts constituting the practice of medicine as herein defined, when such act or acts were a competent producing proximate or contributing cause of such injuries or death, the fact that such person practiced medicine as herein defined without being duly licensed shall be deemed prima facie evidence of negligence

7 All violations of this act, when reported to the regents and duly substantiated by affidavits

or other satisfactory evidence, shall be investigated, and if the report is found to be true and the complaint substantiated, the regents shall report such violation to the attorney-general and request prompt prosecution of such violation The regents may appoint not less than five or more than seven inspectors, to be paid as provided in section 164 of this article under the direction of the secretary of the board of medical examiners, to investigate promptly and thoroughly such violations and to procure where possible legal evidence of the same for prosecution of the offenders Upon the application of the committee on grievances to the secretary of the board of medical examiners, the services of an inspector or inspectors may be furnished for making necessary investigations for said committee

In the prosecution of any criminal action for violation of this article by the attorney-general or his deputy, said attorney-general or his deputy shall exercise all the powers and perform all the duties with respect to such actions or proceedings which the district attorney would otherwise be authorized or required to exercise or perform, and in such actions or proceedings the district attorney shall only exercise such powers and perform such duties as are required of him by the attorney-general or the deputy attorney-general so attending

Section 10 This chapter is hereby amended by adding thereto a new section to be section one hundred and seventy-four-a to read as follows

174a A Revocation of Certificates, Annulment of Registrations

1 Whenever any practitioner of medicine shall be convicted of a felony the registration of the person so convicted shall be annulled and his license revoked by the regents It shall be the duty of the clerk of the court wherein such conviction takes place to transmit a certificate of such conviction to the regents Upon reversal of such judgment by a court having jurisdiction, the regents, upon receipt of a certified copy of such judgment or order of reversal, shall vacate their order of revocation or annulment

2 The license or registration of a practitioner of medicine may be revoked, suspended or annulled or such practitioner reprimanded or disciplined in accordance with the provisions and procedure of this act upon decision after due hearing in any of the following cases

(a) That the physician is guilty of fraud or deceit in the practice of medicine or in his admission to the practice of medicine,

(b) That a physician has been convicted in a court of competent jurisdiction, either within or without this state of a crime or misdemeanor or

(c) That a physician is an habitual drunkard or addicted to the use of morphine, cocaine or other drugs having similar effect, or has become insane—or

NEWS NOTES

BRONX COUNTY SOCIETY

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Dr. Jacobs presented Dr. Edward R. Cuniffe, who thereupon took the Chair and addressed the Society as follows:

"The preceding Administration was not only notable for the high standard of its scientific programs, but it gave us many progressive measures. The first of these inherited activities I would mention is the Public Health Program. This program will be further developed, and demonstrations of Periodic Health Examination methods will be given before the members of the Society. The post-graduate medical plans for education are now under way, and the system will be inaugurated during the coming year. Not alone lectures will be given, but also tentative plans have been made for the instruction of members in different methods of practice in the use of special instruments at the various hospitals in this County. This program will be submitted to you for your approval in the very near future. The programs will be elastic enough to be changed sufficiently often to give the most assistance to the greatest number.

"During the past year a Building Committee was appointed to ascertain the sentiments of the Society toward owning and maintaining its own Home. We look forward to great progress in this matter. Much remains to be done as to the method of the issuing of bonds, arrangement for their payment, selection of site type and size of building, and final decision in regard to undertaking the task alone or in conjunction with other allied professions.

"The legislative program of our Society has grown to great importance, and now that a Municipal Legislature for the practice of Home Rule in the making of plans affecting this city has been established, it gives cause for increased activity in this direction. This Municipal Legislature will have to do with passing laws which govern our municipal hospitals, which is a very important item.

"The matter of most importance before us is the proposed Medical Practice Act. The February meeting of our Society will be an Economic meeting and this Bill will be discussed at that time.

"Some attempt has been made to stabilize the programs for the Stated Meetings of the Society, having papers and discussions on certain sub-

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"I would call the attention of the members to the next meeting of the House of Delegates of the Medical Society of the State of New York, to be held, under the auspices of our Society, beginning March 29th. For the first time in the history of the Bronx, we have one of our members occupying the office of the President of the Medical Society of the State of New York, and it behooves us all to enter into the spirit of this in order to make the meeting a success.

"I would suggest that either a Committee be appointed, through an Amendment to our By-Laws for a Press Reference Committee, or that the Chair be empowered to designate one of the existing Committees, to which all newspaper men could be referred. Any article appearing in the public press which needed reply could be answered by this Committee. The Committee could take care of the publication of worthy news without the use of any names, and any newspaper articles published by clubs could be handled by the same Committee if deemed advisable."

Following new members were elected: Drs. William Aronson, Pauline Harden Barnache, Louis Kirschenbaum, Henry J. Koustas, Joseph Lubart, Abraham Mahler, and Nathan Schwartz.

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such proceedings will be kept, and that the accused will have opportunity to appear either personally or by counsel at the hearing, with the right to produce witnesses and evidence upon his own behalf, to cross-examine such witnesses, to examine such evidence as may be produced against him, and to have subpoenas issued by the said committee. Said committee to whom said charges were referred shall make a written report of findings and recommendations and the same shall be forthwith transmitted to the secretary of the committee on grievances, with a transcript of the evidence. Said committee may thereupon act upon said recommendations as it shall deem fit, or may take further testimony if the same seem desirable in the interest of justice. Thereupon, the said committee shall determine said charges upon their merits, by a majority vote of the members (the vote of each member of said committee to be recorded as part of the committee's findings). If the practitioner is found guilty of such charges, said committee shall transmit to the regents the record, findings and determination wherein and whereby such practitioner has been found guilty, and the regents, after due hearing, shall in their discretion cause to be executed the determination of said committee as herein above provided. If the practitioner is found not guilty, said committee shall order a dismissal of the charges and the exoneration of the accused. Nothing herein contained shall estop the regents from initiatory proceedings in any case.

5 Any licensed practitioner found guilty under the provisions of this section, or whose license is otherwise revoked or suspended, or registration annulled, or who has been refused registration, or who is otherwise reprimanded or disciplined under this article, may have an order of certiorari for the purpose of reviewing such determination returnable before the appellate division of the third judicial department, but no such determination shall be stayed or enjoined, except upon application to such appellate division, after notice to the attorney-general, the committee on grievances or any member thereof may issue subpoenas and administer oaths pursuant to section sixty-one of the public officers' law in connection with any hearing or investigation under this article, and it shall be the duty of such committee to issue subpoenas at the request of and upon behalf of the defense. Said committee on grievances shall not be bound by the laws of evidence in the conduct of its proceedings, but the determination shall be founded upon sufficient legal evidence to sustain the same. The regents shall furnish legal advice and assistance to said committee whenever such service is requested.

6 Any controversy between two or more physicians, or between a physician or physicians and another person, which said parties to such con-

troversy agree to submit to arbitration, may be submitted in writing to said committee on grievances, which may in its discretion act as arbitrator in said controversy, and the decision of said committee upon such arbitration shall be final, and where the same orders the payment of a sum of money, the same may be docketed as a judgment of a court of record and enforced as such judgment, provided the terms of the arbitration include such provision.

7 The regents may remove any member of said committee from office who shall have been found guilty, after due hearing, of malfeasance in office or neglect of duty.

8 No member of the committee shall participate in any way in the hearing and determination of any charges in which he may be either a witness as to facts or an accused, nor in any case where the parties, complainant or accused are related to him by consanguinity or affinity within the sixth degree. The degree shall be ascertained by ascending from the member of the committee to the common ancestor and descending to the party, counting a degree for each person in both lines, including the member of the committee and the party and excluding the common ancestor.

9 Should, for any reason, three or more members of the committee be disqualified from participating in the hearing and decision of any case, or be for other reason unable to participate therein, then places may be temporarily filled for the purpose of determining the case to be heard by the remaining members of the committee nominating twice the number of candidates for such vacancy from whom there shall be selected by the chairman of the committee, after notice to the respective parties, the necessary number of members to constitute a quorum. A quorum of said committee shall consist of six members.

10 Said committee shall have power to make such rules and regulations for the conduct of its business as it shall deem necessary, provided such rules and regulations do not conflict with any of the provisions of this article.

11 The said committee shall have power, where a proceeding has been dismissed, either on the merits or otherwise, to relieve the accused from any possible odium that may attach by reason of the making of charges against him, by such public exoneration as it shall see fit to make if requested by the accused so to do.

Section 12 If any clause, sentence, paragraph or part of this act shall for any reason be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair or invalidate the remainder of said act, but shall be confined in its operation to the clause, sentence, paragraph or part thereof directly involved in the controversy in which such judgment shall have been rendered.

Section 13 This act shall take effect immediately.

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MEDICAL SOCIETY OF THE COUNTY OF QUEENS

The regular meeting was held at Eagle Palace, Jamaica, January 26th 1926, President Dennis E. McMahon, M D, in the chair

The scientific session opened with a presentation on

I The Treatment of Pneumonia by Harlow Brooks, M D Dr Brooks brought out the fact that pneumonia is a local disease situated in the lungs, and not a general disease of the body, with relatively few complications No immunity is developed or at best a short lived immunity Many times there is a sensitization The treatment is directed to the patient rather than the disease Emphasis was placed upon rest as the most efficient treatment This had reference to emotional as well as physical rest Details covering the clothing and care of the patient were discussed Objections to cupping and the use of poultices are the disturbance it causes the patient An electric pad or hot water bag meets every requirement The same applies to various other applications The value of rest artificially produced and the relief of suffering by the use of opium usually as morphine was emphasized Emphasis was placed on The support of the circulation, the treatment of the peripheral circulation, the maintenance of proper excretion both of kidneys and bowels, the control of cough by the judicious use of morphine, codeine or heroin and possibly later in the disease by the use of expectorants Also strapping of the chest or abdomen by a band or corset, a diet consisting of sweetened fruit juices and the proper use of alcohol, the importance of treatment of tympanitis by irrigation or alkaline laxatives, the relief of respiratory distress including an abundance of fresh air, the nervous management including meningitis and delirium, and finally a consideration of the specific treatments regarding which the speaker valued serum in type I cases, not later than 72 hours, after which there is danger of its adding a serious anaphylactic shock Other specific treatments have thus far proved disappointing

A discussion followed next was participated in by Drs Boettiger, Stein, Whelan, Koumrian, Lehman, Victor and Langer, and was closed by Dr Brooks

II A presentation on Empyema—A review of the closed method of treatment with lantern slide illustrations, by Ralph F Harloe, M D, who emphasized the advantages of the close method of drainage and irrigation and the lessened mortality resulting therefrom He described special instruments for the procedure and exhibited X-rays of patients during the progress of the disease Discussion by Drs Stein, Biffer, and closed by Dr Harloe

III J Paul McHugh, M D, reported a case

of actinomycosis of the lungs Dr Boettiger reported the necropsy

In the business session nine new members were elected and three received by transfer from other societies The report of the Committee on Graduate Education showed a gratifying activity among members of the profession in the county

A course of 14 bi-monthly afternoon lectures on practical subjects is being given and will continue through May, and their messages are being received by large audiences

Special practical courses are being given at the hospitals throughout the County These include

St Johns Hospital

- 1 Heart Disease
- 2 Obstetrics
- 3 Clinical Pathological Conference
- 4 Neurological Diagnosis
- 5 Dermatology
- 6 Medical Ophthalmology

Flushing Hospital

- 1 Surgical Diagnosis and After-Treatment
- 2 Fractures
- 3 Infant Feeding

Jamaica Hospital

- 1 Diabetes
- 2 Clinical Surgery
- 3 Clinical Demonstration of Treatment of Fractures of Extremities Methods of Reduction and Apparatus

Rockaway Beach Hospital

- 1 Diagnosis and Treatment of Ear, Nose and Throat Diseases
- 3 Pediatrics—Nutrition and Common Disorders of Infancy and Childhood
- 4 Clinical Diagnosis

Courses are open to any registered physician

Dr Courten reported a communication regarding the appointment of Committees from the county societies within the limits of the City of New York to form a Joint Committee on Nursing, especially with reference to the educational requirements On the adoption of resolutions the chair appointed Drs T C Chalmers, Carl Boettiger and E E Smith, such a Committee for the County of Queens

The Public Health Committee was instructed to look into the matter of establishing a City Hospital in the County of Queens



THE DAILY PRESS



Stinging comments on the failure of physicians to make effective use of lay periodicals in broadcasting health information are found in an editorial entitled "Good News Suppressed,"* in the January 30th issue of the *Saturday Evening Post*. The article is valuable because it holds a mirror before the medical writer and reveals him to himself as thoughtful laymen see him. As is usual with such articles, the writer mistakes symptoms for pathology, and prescribes remedies which are not absorbable. He assumes that the difficulty lies in the doctors' central broadcasting station, and ignores the possibility that the laymen's receiving sets may be overwhelmed with static and meaningless squawks which completely obscure the doctor's message, or that many laymen may have no receiving sets at all. With this explanation the following extracts from the article are presented:

"The science of medicine is, as far as laymen are concerned, the most tongue-tied of all the learned professions. Clergymen can deliver their messages in words of one syllable to high and low alike. Lawyers, by skill of word and clarity of expression, can make juries of the most limited education comprehend the essentials of highly intricate cases. The doctors alone are the bond-slaves of a vocabulary drawn from the dead languages.

"Our physicians, surgeons and health officers are fairly boiling over with important information which they desire to communicate to the general public, but somehow they lack the simple, racy English in which to get it over, or the sense of form and accent which would make it interesting and attractive. This inability to write plain understandable English so readable in form and so accurate in statement that it is easy to make it accessible to large bodies of readers, is costing thousands upon thousands of American lives every year. Attention is called to this condition because it has a message to Garcia which it is not delivering.

"The physicians, however, despite the best intentions, are contributing far less effectually than they might to the cause of preventive medicine. Their zeal for scientific advancement knows no bounds, but they forget that much of their newly acquired knowledge must remain barren until it has become common property and its significance has been grasped and realized. Even the commonplaces of modern medicine have not been universally taught. Coughs are still neglected, eyes, ears, noses, throats and teeth, which are obviously defective, are allowed to go for years

without proper inspection, lumpy formations are ignored in the vain hope that they will disappear, adenoid growths are tolerated, and millions upon millions of us for lack of expert advice continue habitual diets which are little better than slow poisons. Indigestion, for the most part avoidable, has become our national disease.

Popular medical education cannot be achieved in a day, nor can it be accomplished by scattered outbursts of even the best-trained publicity in many days. The population of the country is too numerous and too widespread, and the handicaps are too formidable to warrant any hope of the sort. Not the least of these handicaps is the attitude of the medical profession toward the lay press. For centuries physicians and surgeons have considered the lay press as common and unclean.

"The enlightened physician has a great body of news of the highest importance to communicate to non-medical readers. He is fully alive to the educative powers of the newspaper and periodical press, but he does not know how to use the mighty engine he has so long despised. He is unable to frame his warnings with such skill that he can have them printed, or having had them published he cannot lure people into reading, digesting and heeding them. His love of long, accurate Greek and Latin words is his he-etting sin, and his punishment is in witnessing the affliction which might have been avoided if he had been able to deliver his message interestingly in simple vernacular English.

"When the medical profession become more fully awake to its responsibilities in this field, it is to be hoped that it will perceive the gravity and importance of its problem and attack it in force over a nation-wide front. Some national body, such as the American Medical Association, which has made such a good start along these lines ought to take up the matter in a big way and work out a comprehensive program which would unify the efforts of the agencies already in the field, and by coöperating with state and local boards of health, hospital clinics, community centers and county medical societies, cover the lay press of the whole country. Local organizations should cultivate their own home papers and see that they are supplied with simply and attractively written reports of all transactions in which the public is immediately concerned. They should spare no pains to make them as readable as the effusions of the sporting editor, who has perhaps reported their meetings in the past and as much more accurate as their technical knowledge will permit. Eminent

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specialists should be induced to continue and multiply the excellent health talks which have been broadcast by radio

"The old-time prejudice against medical men writing on medical matters for the lay press should give way to a more enlightened code, and young physicians should be encouraged to take pen in hand with a view to bringing about a closer understanding between doctors and patients. The good which would follow would outweigh the evil

"Any adequate nation-wide program of popular medical education such as is here contemplated would involve heavy outlays both of brains and of money, but its importance and its benefits, both social and economic, would be so stupendous that there is small reason to doubt that if the doctors would supply the brains the business world would find the money, and the newspaper publishers would furnish the white paper. There is no novelty in the basic idea. Many leaders of the medical profession have long had it in the back of their minds, but while it simmers there, it does no good to suffering humanity. The time has come to convert good intentions into action."

If physicians have the power to command good health by means of the spoken or written word, then ministers of the Gospel can convert the world to unselfish service, and lawyers can secure equal rights for all and rouse dullards to take advantage of their opportunities. But the questions arise—Will the people understand the scientific subjects which doctors present? Which do the people want, facts or promises?

It is noteworthy that serious medical topics are not taken as subjects for cartoons or sentimental poems. They do not lend themselves to current methods of publicity, because their comprehension requires study and intensive concentration far beyond that which they would get if they were sandwiched between a jazz dance and a bed-time story.

However, the general indictment of the *Saturday Evening Post* is true. Doctors do not use the lay press as much as they should. To inspire medical publicity for the benefit of the laity is one of the objects of the department of Daily Press in this JOURNAL.

PATHOMETRY

Of the making of new words there is no end, especially medical words. The New York *Herald-Tribune*, February 14th, records a new word—pathometry—coined to represent the measure of illness, or the study of illness from an economic standpoint. What is the prevalence of various diseases? What hospital provision is needed for them? How much working time is lost on account of illness? How much of the illness is preventable? What is the relation of diseases to occupation, age, race, and economic states? Such questions as these are included in the study newly called "pathometry." The study is not new, but has been made ever since the days of health departments and medical journals and libraries. Its newer phase is large economic, and could well have been called by the simple descriptive term of the economics of illness. The American Indians and the Germans would run the descriptive terms together to form a word whose meaning would be evident without a dictionary.

The publishers of the new editions of medical dictionaries go to great pains to advertise the up-to-dateness of their books, and devote whole pages to the enumeration of new words that have been coined since the last editions.

A language is often said to reflect current progress, but is it necessary to coin a new word to stand for every new medical conception? A considerable part of the time of a medical student is spent in learning technical terms, and it would seem that a generation ago there were more terms than were needed, or that a student could use intelligently. The coinage of new words is now going on at a faster rate than ever, and medical writers feel an urge to use them in order to show their progressiveness. Is it not true that they sometimes serve to conceal rather than reveal thought? Medical men often have difficulty in following the thoughts of their confreres who revel in polysyllabic terms that are the despair of stenographers and of ordinary doctors who seek ideas rather than conventional symbols. It is no wonder that the Editor of the *Saturday Evening Post* calls for simplicity in medical language. It would seem that Webster's English Dictionary already contains a sufficient number and variety of words to meet the legitimate needs of doctors.



BOOK REVIEWS



THE NATIONAL HEALTH SERIES To be published in twenty volumes by the Funk & Wagnalls Company, New York, 1924 16mo Average number of pages, 70 Bound in Flexible Fabrikoid Price per set, \$6.00 net, per volume, 30c. net.

The Young Child's Health By Henry L. K. Shaw, M.D. This little volume deals with the hygiene of the child between two and six years of age, the so-called preschool period. The brief chapters on Growth and Development, Health and Hygiene Problems, and Foods and Feeding are particularly commendable.

The Human Machine. How Your Body Functions By William H. Howell, M.D. Dr. Howell has written in language so simple and concise that the layman who reads this book cannot fail to gain some conception of the physiological processes of the body.

Taking Care of Your Heart. By T. Stuart Hart, M.D. Here is a manual which every physician can give to a patient suffering with heart disease. It is filled with good, hard common sense, and the patient who reads it cannot but see the value of sincere co-operation with his physician.

The Quest for Health. By James A. Tobey, M.S. Mr. Tobey has outlined herein those essentials for personal health with which everyone should be familiar. An interesting feature is his discussion of the kind of physician a person should consult. He recommends that graduates of Class A schools only be consulted. We acknowledge that the recent graduates to be recommended must be graduates of such schools, but there are large numbers of older physicians who were graduated from institutions which at that time may have been of the best, but which now are not rated A. These men are put in a very bad light by this rather radical recommendation of the author's.

Food for Health's Sake. By Lucy H. Gillett, M.A. At last we have a volume, brief though it is, dealing with diet and which does not contain a list of foods with their caloric values. Most individuals ingest far more calories than are necessary anyway. This book stresses two points in particular—the importance of the protective foods, and the way to feed a family with economy.

Venereal Diseases By William F. Snow, M.D. Dr. Snow has probably done more than any other one person to advance the campaign for the prevention of syphilis and gonorrhea. This little volume which he presents sums up the whole situation from various standpoints—lay, legal, medical, and moral.

Tuberculosis. Nature, Treatment and Prevention. By Linsly R. Williams, M.D. This volume contains clear, concise, simple statements of the causes, symptoms and treatment of tuberculosis. Although primarily intended for the layman, many physicians will find much of value in what Dr. Williams says.

The Expectant Mother By Robert L. DeNormandie, M.D. The hygiene of pregnancy, labor and puerperium is carefully explained by the author, and the pregnant woman reading this little book will find her fears dispelled.

Love and Marriage. Normal Sex Relations By T. W. Galloway, Ph.D. The only way in which the result of experience regarding love, marriage and sex relations in general can be made of service to the younger generation is by means of education, and the author deals with these subjects in such a sane, unoffensive and scientific manner that many readers should be reached and should profit thereby.

E. H. MARSH

ANAPHYLAXIS AND SENSITISATION With special Fer-
erence to the Skin and Its Diseases. By R. CRANSTON
Low, M.D., F.R.C.P. Lecturer, Diseases of the Skin,
Edinburgh University. 16 colored plates, 7 half-tone
illustrations. William Wood and Co., New York,
1925. Price, \$6.50.

This book is the reproduction of a thesis which was presented for the degree of M.D. of the University of Edinburgh and was awarded a gold medal. The author is an assistant of Sir Norman Walker in the Royal Infirmary at Edinburgh, where the work was carried to completion. The truly splendid colored plates of skin diseases with which this volume is illustrated are reproductions of those used by Walker in his *Introduction to Dermatology*.

No attempt has been made to describe the diseases, nor is treatment suggested, the author has, however, done much to show just how certain diseases of the skin are caused—a long step in the right direction in dermatological teaching. Chapters are devoted to anaphylaxis and sensitization and their relation to serum, sickness, urticaria, syphilis, tuberculosis, fungus and focal infections, drug eruptions, dermatitis venenata, eczema, etc.

Appended to each chapter are the author's conclusions, which are fair and impartial and greatly assist the student. A complete bibliography of the subject occupies the last eighty pages.

The book is well printed, a novelty being the use of bold-face type in printing the names of other authors whose writings are drawn upon. NATHAN T. BEERS

LEPROSY By SIR LEONARD ROGERS, M.D. F.R.C.P., F.R.C.S. (Retired), physician and Lecturer, London School of Tropical Medicine, and ERNEST MUIR, M.D., F.R.C.S., Edin., Research Worker in Leprosy School of Tropical Medicine and Hygiene, Calcutta. Illustrations. Map showing world distribution of Leprosy. William Wood and Co., New York, 1925. Price \$4.75.

This volume includes in amplified form the first three Croonian Lectures for 1924 delivered before the Royal College of Physicians of London by the first-named author. It is divided into six general sections including History and Distribution, Epidemiology and Communicability, Prophylaxis, Etiology, Clinical and Treatment, and is a masterly and exhaustive treatise on the whole subject.

As the Authors state, the Leprosy problem has baffled the profession for over three thousand years in the absence of any curative treatment, and now that effective methods are available of clearing up the symptoms and infectivity of most early, and some more advanced cases, the whole question has entered on a few and more hopeful epoch, and requires reconsideration in the light of our present knowledge.

The chapters on treatment are intensely interesting and are beautifully illustrated by photographs made of the patients themselves before and after treatment by the newer methods, which, of course, are given in full. Both of the authors are medical men of wide experience in this field, having labored for many years in Calcutta.

NATHAN T. BEERS

SYMPTOMS OF VISCERAL DISEASE A Study of the Vegetative Nervous System in Its Relationship to Clinical Medicine By FRANCIS MARION POTTENGER, A M., M.D., LL.D., F.A.C.P. Third Edition. Eighty-six Illustrations, Ten Color Plates. The C. V. Mosby Co., 1925. Price, \$6.50

This book might well be called "The Vegetative Nervous System in Health and Disease." Much of the interesting data on this important subsidiary of the central nervous system is incorporated in the book. The fundamental principles of the physiology of the system are repeated so often under various subheadings that they cannot be missed. The author uses italics freely, which always detracts from the value of a book. The value of the book could be enhanced many fold if the repetitions were removed, and as a consequence the book could be reduced to about 100 pages. The very interesting explanation of many visceral symptoms would thus be more compact, and one would not tire so soon in an endeavor to get to the end of the journey.

J. ARTHUR BUCHANAN

THE INTERNATIONAL MEDICAL ANNUAL A Year Book of Treatment and Practitioner's Index. Forty-third year, 1925. William Wood and Co., New York. Price, \$6.00

The present issue is the forty-third appearance of a year book of medical and surgical treatment, and while it purports to be of an international nature, it is overwhelmingly English in its list of contributors and in the articles reviewed.

Of about thirty collaborators one notes but four Americans, namely, A. W. Adson of Rochester, E. Wyllis Andrews and Edmund Andrews of Chicago, and J. Ramsay Hunt of New York.

Many valuable and interesting articles are reviewed, one which seemed of special attraction was from the *Presse Medicale* describing the use of lipiodol by intratracheal injection for X-ray diagnosis of pulmonary conditions, especially bronchiectasis.

Books of this kind are of particular value to the busy practitioner who has not the time to read all the current literature during the year and who is anxious to keep abreast of the times by having the outstanding writings summarized for him.

The vitally important part of a year book is naturally the index, and in this case it is commendably good.

WM. HENRY DONNELLY

GERIATRICS A TREATISE ON THE PREVENTION AND TREATMENT OF DISEASES OF OLD AGE AND THE CARE OF THE AGED. By MALFORD W. THEWLIS, M.D., Editor Medical Review of Reviews, With introductions by A. JACOBI, M.D., LL.D., and I. L. NASCHER, M.D. Second Edition, Revised and Enlarged. C. V. Mosby Company, St. Louis, 1924. Price, \$4.50

The book is an excellent outline of the management of the senile state. Treatment of disease in the aged must be based on the principle of restoration to what is normal in senility. Dosage differs. An excellent chapter appears on the hygiene of the aged—clothing, skin, bowels, tobacco, urinary retention, eyes exercises and work. Emphasis is laid on keeping the senile out of bed, especially when ill and post-operatively. Differentiation is made between physiologic senile mental impairment and senile dementia. Toxemia, blood pressure and arteriosclerosis are discussed. Drugs for the senile state and opotherapy (tissue extracts) are thoroughly discussed in a very optimistic, though not convincing manner. Many pathological states are gone into in detail, and the use of electricity, radium and surgery stressed.

A TEXT-BOOK OF PATHOLOGY By W. G. MACCALLUM. M.D. Third Edition, thoroughly revised. 1162 pages, 575 original illustrations. Philadelphia and London, W. B. Saunders Co., 1924. Cloth, \$10.00 net

This third edition equals the excellence of the preceding editions. Some alterations have been made in the arrangement of the subjects and in the subject matter. Additions to the text have brought the book up-to-date. Many illustrations have been added, and new ones have been substituted for old ones.

As is to be expected, rickets is handled from the Johns Hopkins point of view in a masterly manner. As a whole, the volume approaches an unusual standard of excellence and as such should prove a valuable fundamental treatise for students and practitioners. Of a work so well known and written by so eminent an authority further comment is superfluous.

MAX LEDERER

FEEDING, DIET AND THE GENERAL CARE OF CHILDREN A Book for Mothers and Trained Nurses. By ALBERT J. BELL, M.D. Second revised edition. Illustrated. F. A. Davis Co., Philadelphia, 1924. Price, \$2.00 net

In this book the author strikes a dominant note in the opening chapter, by impressing upon the mind of the mother the importance of breast nursing. By saying it briefly and in a language understandable by any mother he establishes a *raison d'être* for his little book.

The medical man in recommending this little book to a prospective mother will do well to endorse chapter 11 and 12. This will serve the right direction in the path of preventive medicine. This is also true of chapters 18 and 19 which deal with Child Hygiene, a which every "unspoiled" mother should be advised to memorize. The more experienced "know it all" mother may be convinced if she can be made to read it.

The feature chapter—on Dentistry—is somewhat ultra modern, especially the recommendation to submit even child of 6 to an X-ray examination of his teeth, in order "to detect possible irregularities" in that part of the child's anatomy.

Chapter 36, on food preparations and solutions, is useful and practical for both the mother as well as the nurse.

One also finds here a rather good variety of formulas, their approximate measures and caloric values.

A good portion of this book is devoted to the brief discussion of diseases, from Pinworms to Meningitis, Poliomylitis, Scarlet, Intussusception, etc., giving the symptoms and general characteristics which of course may not be of interest to mothers but the trained nurse will find it helpful, especially the "Pediatric Nurse".

The reviewer hopes the future will produce more such books in order thereby to stimulate and encourage the "Pediatric Nurse".

It is a helpful little book and certainly more modern than most of the other books in its class and deserves the endorsement of the general practitioner as well as the Pediatrician.

HARRY APPEL

BACTERIA IN RELATION TO MAN A Study-Text in General Microbiology. By JEAN BROADHURST, Ph.D. Octavo of 306 pages, with 147 illustrations. Philadelphia and London, J. B. Lippincott Company, 1924. Cloth, \$3.00 (Lippincott's Nursing Manuals)

This book is an excellent laboratory outline of general microbiology, but not in the reviewer's opinion exactly fitted to the needs of a student nurse in the ordinary hospital. Its scope is general, not limited merely to pathogenic bacteria, but to the wider relations, helpful as well as harmful of bacteria to man. As a preliminary the author takes up the plant cell and plant in general, and then goes into the study of the characteristics of the various bacteria, methods of disinfection, air, water, milk, and nitrogen cycle, and relation to disease. This latter subject is only lightly touched upon, as is also the subject of immunity.

I COHN

PNEUMONIA. Its Pathology, Diagnosis, Prognosis and Treatment. By the late R. MURRAY LESLIE, M.A., B.Sc., M.D. Edited and revised by J. BROWNING ALEXANDER, M.D., M.R.C.P. (Lond.) Octavo of 351 pages. London, William Heinemann 1924. Cloth, fl 2s. 6d.

Used posthumously in 1925 after editing by J. Browning Alexander. Physician to St. Mark's Hospital in London, this volume of 350 pages presents in succinct form an account of pneumonia from the earliest days of medicine to the present. It is of interest because the subject is rarely handled in this way and because the material is so well presented the author calling upon his experience of many years as Senior Physician to the Prince of Wales General Hospital and to the Royal Chest Hospital of London.

In turn, the nomenclature of the disease its bacteriology, classification, typical forms, etiology, sources of infection, channels of infection, pathology, symptomatology and phenomena of crisis and lysis are thoroughly considered.

Discussion is presented in attractive form and easily holds the attention. The chapters dealing with treatment are valuable, those relating to alcohol, opium and digitalis are thorough in their scope and broader in their concept than in standard text books.

Such a volume as this is unusual and worthwhile so few thorough discussions of the subject being presented in English.

FRANK BETHEL CROSS

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. A New and Complete Dictionary of the Terms Used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Science, Biology, Medical Biography etc. with the Pronunciation Derivation and Definition including Much Collateral information of an encyclopedic character. Thirteenth Edition revised and enlarged. By W. A. NEWMAN. Octavo of 1344 pages with 338 illustrations in color. Philadelphia and London W. B. Saunders Company 1925. Flexible binding \$7.00, thumb index, \$7.50.

The thirteenth edition follows the same general line as the previous editions, the important feature being the addition of about 2500 new words. Many of these words can be found in no other dictionary. The general excellence of this book, together with the fact that it is just off the press, should recommend it to the profession as probably the best medical dictionary available at the present time.

FREDERIC DAVALL

RADIUM. Its Therapeutic Uses in General Practice. By G. H. VARLEY, M.D. (Oxon). 12mo of 103 pages. London Humphrey Milford New York Oxford University Press 1924. Cloth \$1.75.

In this little work Dr. Varley has given a detailed account of his experience in the use of radium in his own general practice, including everything from corns to cancer of the stomach—in all some 150 cases. His statements are frank, his cases well studied and the results fully described. Dr. Varley has been careful to supply his exact technique and dosage in each case, thereby enhancing the value of his book to the radiologist. It must be remembered however that all of his radium was in the form of the bromide which is approximately half the strength of the sulphate of radium in which the form radium is used in America. The first part of the book is given over to the history of radium and its proper methods of application and dosage.

We shall look forward to a subsequent book which Dr. Varley has promised in his introductory remarks.

NATHAN T. BEERS

A TEXT-BOOK OF GENERAL BACTERIOLOGY. By EDWIN J. JOHAN, Ph.D. Eighth edition, thoroughly revised. Octavo of 722 pages, fully illustrated. Philadelphia and London W. B. Saunders Co. 1924. Cloth \$5.00.

This book is so well known that it needs no introduction. It is as always compact, practical, thorough and useful. The subject is covered in the usual way with discussions of methods, principles, genera and characters on all the pathogenic bacteria. There are also chapters on alterable viruses, bacteria in milk, soil and water, diseases of plants and diseases of probable bacterial origin. The author records recent advances in this science by discussing the bacteriophage, tularemia and the discoveries in scarlet fever. He also devotes many pages to the antibiotics.

E. B. SMITH

A MANUAL OF GYNECOLOGY. By JOHN COOKE HIRST, M.D., F.R.C.S. Second edition, revised. 12mo of 308 pages with 195 illustrations. Philadelphia and London W. B. Saunders Company 1925. Cloth \$3.50.

The text is presented in the manner used by the author in teaching the subject during the past twenty years. In several sections the matter has been considered from the combined obstetrical and gynecological viewpoint. To present it in any other way would be at the expense of thoroughness and clarity. Throughout the book an effort has been made to omit unprofitable discussion and to give to the reader at least one method of treatment which has proven its value as a basis on which to build is suggested by the individual's own experience. Special chapters deal with leucorrhea and backache. The causes of the latter are thoroughly discussed but with vague suggestions to remedy it. Leucorrhea is given considerable space particularly the treatment. After a trial of each remedy suggested the leucorrhea will probably be still present. We note in the treatment of the climacteric the use of the ancient and decrepid valerianates. The reader however is warned of their "terrible smell."

As a manual it serves its purpose admirably.

F. B. DOYLE

COMMON DISORDERS AND DISEASES OF CHILDHOOD. By GEORGE FREDERICK STILL, M.A., M.D., F.R.C.P. Fourth Edition. Octavo of 905 pages with illustrations. London Humphrey Milford New York Oxford University Press 1924. Cloth \$7.50.

The fourth edition remains true to the stated plan of the author in his first edition, namely, not to attempt to present a systematic treatise or text-book but rather to be selective and discursive as it suited his bent.

As the very title of the book implies the theme is the everyday and commonplace disorders which bulk most largely in the out-patient and in-patient clinics of a children's hospital.

The original plan was to put together lectures delivered at King's College Hospital and at the Hospital for Sick Children in Great Ormond Street, London, and with these were combined other clinical studies written at various times for other purposes.

The lapse of eight years, since the appearance of the third edition, made it seem wise to revise and bring the text up to date, and new chapters have been added on blood diseases, purpura and some purely symptomatic occurrences such as headaches, giddiness and loss of weight in children past the age of infancy.

No visit to London is complete for any one interested in pediatrics without a visit to Great Ormond Street where Dr. Still and his assistants give clinics which are as remarkable for their clarity and simplicity as for their thoroughness.

The author is fortunate in being able to write as he talks and the same thoroughness and simplicity mark the text of his book as his bedside and clinical talks.

WM. HENRY DONNELLY

SYMPTOMS OF VISCERAL DISEASE A Study of the Vegetative Nervous System in Its Relationship to Clinical Medicine By FRANCIS MARION PORTNOR, M.D., LL.D., F.A.C.P. Third Edition Eighty-six Illustrations Ten Color Plates The C V Mosby Co., 1925 Price, \$650

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Books of this kind are of particular value to the busy practitioner who has not the time to read all the current literature during the year and who is anxious to keep abreast of the times by having the outstanding writings summarized for him.

The vitally important part of a year book is naturally the index, and in this case it is commendably good.

WM HENRY DONNELLY

GERIATRICS A TREATISE ON THE PREVENTION AND TREATMENT OF DISEASES OF OLD AGE AND THE CARE OF THE AGED By MALFORD W. THEWLIS, M.D., Editor Medical Review of Reviews, With introductions by A. JACOB, M.D., LL.D., and I. L. NASCHER, M.D. Second Edition, Revised and Enlarged C V Mosby Company, St. Louis, 1924 Price, \$4.50

The book is an excellent outline of the management of the senile state. Treatment of disease in the aged must be based on the principle of restoration to what is normal in senility. Dosage differs. An excellent chapter appears on the hygiene of the aged—clothing, skin, bowels, tobacco, urinary retention, eyes exercises and work. Emphasis is laid on keeping the senile out of bed, especially when ill and post-operatively. Differentiation is made between physiologic senile mental impairment and senile dementia. Toxemia, blood pressure and arteriosclerosis are discussed. Drugs for the senile state and opotherapy (tissue extracts) are thoroughly discussed in a very optimistic, though not convincing manner. Many pathological states are gone into in detail, and the use of electricity, radium and surgery stressed.

A TEXT-BOOK OF PATHOLOGY By W G MACLEOD, M.D. Third Edition, thoroughly revised. 1162 pages 575 original illustrations Philadelphia and London W B Saunders Co., 1924 Cloth \$10 net

This third edition equals the excellence of the preceding editions. Some alterations have been made in the arrangement of the subjects and in the subject matter. Additions to the text have brought the book up-to-date. Many illustrations have been added, and new ones have been substituted for old ones.

As is to be expected, rickets is handled from the Johns Hopkins point of view in a masterly manner. As a whole, the volume approaches an unusual standard of excellence and as such should prove a valuable fundamental treatise for students and practitioners. On a work so well known and written by so eminent an authority further comment is superfluous.

MAX LEDERER

FEEDING, DIET AND THE GENERAL CARE OF CHILDREN

A Book for Mothers and Trained Nurses By ALBERT J BELL, M.D. Second revised edition. Illustrated. F A Davis Co., Philadelphia, 1924 Price, \$2.00 net

In this book the author strikes a dominant note in the opening chapter, by impressing upon the mind of the mother the importance of breast nursing. By saying it briefly and in a language understandable by an mother he establishes a *raison d'être* for his little book.

The medical man in recommending this little book to a prospective mother will do well to endorse chapter 1 and also advise his patient to specially study chapters 11 and 12. This will serve the right direction in the path of preventive medicine. This is also true of chapters 18 and 19 which deal with Child Hygiene and which every "unspoiled" mother should be advised to memorize. The more experienced "know it all" mother may be convinced if she can be made to read it.

The feature chapter—on Dentistry—is somewhat ultra modern, especially the recommendation to submit every child of 6 to an X-ray examination of his teeth, in order "to detect possible irregularities" in that part of the child's anatomy.

Chapter 36, on food preparations and solutions, is useful and practical for both the mother as well as the nurse.

One also finds here a rather good variety of food tables, their approximate measures and caloric values.

A good portion of this book is devoted to the brief discussion of diseases, from Pinworms to Meningitis, Poliomyelitis, Scarlet, Intussusception, etc., giving their symptoms and general characteristics which of course may not be of interest to mothers but the trained nurse will find it helpful, especially the "Pediatric Nurse."

The reviewer hopes the future will produce more such books in order thereby to stimulate and encourage the "Pediatric Nurse."

It is a helpful little book and certainly more modern than most of the other books in its class and deserves the endorsement of the general practitioner as well as the Pediatrician.

HARRY APPEL

BACTERIA IN RELATION TO MAN A Study-Text in General Microbiology By JEAN BROADHURST, Ph.D. Octavo of 306 pages, with 147 illustrations. Philadelphia and London, J B Lippincott Company, 1923. Cloth, \$3.00 (Lippincott's Nursing Manuals)

This book is an excellent laboratory outline of general microbiology, but not, in the reviewer's opinion, exactly fitted to the needs of a student nurse in the ordinary hospital. Its scope is general, not limited merely to pathogenic bacteria, but to the wider relations, helpful as well as harmful, of bacteria to man. As a preliminary the author takes up the plant cell and plants in general and then goes into the study of the characteristics of the various bacteria, methods of disinfection, air, water, milk, and nitrogen cycle, and relation to disease. This latter subject is only lightly touched upon as is also the subject of immunity.

I CORN

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MARCH 15, 1926

LYMPHATIC DRAINAGE *

By Dr W A. COSTAIN, M B,

Department of Surgery University of Toronto
TORONTO, CAN

THE operation of draining the thoracic duct in the neck is a new surgical procedure which is designed to overcome the septic absorption which occurs in diffuse peritonitis.

The rationale of the operation is that in peritonitis, septic absorption occurs through the lymphatics into the thoracic duct, and by ligating and opening this structure in the left side of the neck the products of septic absorption are prevented from entering the blood stream and are drained away from the wound.

In advocating this operation one assumes that it is the products of septic absorption which give rise to those symptoms in peritonitis, generally regarded as complications, namely: obstipation, distension, vomiting, cyanosis, etc.

The septic products which produce these symptoms are contained in the lymph which is continually pouring into the blood stream in large quantities. One does not realize the extent of this fluid contribution to the blood until the flow from the duct has been actually seen. An estimation of two quarts in twenty-four hours has been made.

In peritonitis that fluid is coming from two septic sources: one is the peritoneal cavity and the infected tissue spaces, through the lymphatics proper, and the other is the lumen of the bowel, through the lacteals. The composite nature of the lymphatics of the abdominal cavity is indicated in Figure I.

The fluid absorbed from the lumen of the bowel, through the lacteals, is extremely toxic in character and is a factor of the utmost importance in peritonitis. It affords an explanation of the verging of symptoms of diffuse peritonitis and other acute abdominal conditions into one clinical picture.

The paths of lymphatic flow are well shown in the accompanying figures. Figure 2 is an X-ray picture of a dog's small intestine in which

some of the lymphatic vessels of the mesentery were injected with quick-silver before the dog was sacrificed. The mercury in each case flowed up to the glands at the root of the mesentery and stopped, being too large to pass the glands. Injection could only be made upwards with the lymph stream on account of the numerous valves which prevented retrograde injection. Figure 3 shows a comparison between the size of the lymph vessels and the branches of the superior mesenteric artery. Figure 4 is an X-ray of a dog in which the injection was made proximal to the glands in the root of the mesentery. In this dog the mercury not only filled the lymphatics, but flowed into the circulation where some is seen in the right auricle and in arteries of the abdominal cavity. Figure 5 is a similar picture showing injections in the mesentery and the proximal side of the glands up to the outlet of the duct in the neck. Figure 6 shows a dissection of a dog's thoracic duct, injected with mercury. The duct is double in the major part of its extent. This happens occasionally in the human thoracic duct and is due to an arrest of the embryological development. Figures 7, 8, 9, and 10 are drawings of the human lymphatics. The relations of the duct in the neck are clearly shown. In a young individual the duct is higher in the neck than in the adult where it is usually slightly above or even behind the clavicle.

The experimentation upon which this operation was based consisted in ligating the appendix in dogs, as shown in Figure II, the base of the appendix and the mesoappendix being ligated separately with double chromic catgut ligatures. The abdomen was then closed, and it was found that the dogs died in about two days. What happened was the appendix swelled up becoming gangrenous and filled with black highly infective fluid, and before walling off could occur ruptured into the peritoneal cavity causing a fatal diffuse peritonitis. When, however, this procedure was supplemented, after twenty-four hours, by a suc-

* Read at the Annual Meeting of the Medical Society of the State of New York at Syracuse May 13, 1925.

MIDWIFERY MECHANICS By LIEUT-COLONEL ANDREW BUCHANAN, I.M.S. (Retd.), M.A., M.D., M.Ch., M.A.O. Octavo of 82 pages with illustrations. London, Humphrey Milford, New York, Oxford University Press, 1924. Cloth, \$2 50

This little book is an ingenious explanation of the mechanism of delivery, based upon the author's "theory of the pivot points." The difficulty in occipito posterior positions is due, he says, not to a long diameter of engagement but because the pivot points are not altogether. Many drawings of his models seem to make his exposition of this subject as clear as a problem in geometry. Although difficult to follow without models the story is very interesting to a student of obstetrics.

C. A. G.

INSECTS AND DISEASES OF MAN By CARROLL FOX, M.D. Octavo of 349 pages, with 92 illustrations. Philadelphia, P. Blakiston's Son and Company, 1925. Cloth, \$4 00

This book aims to present the subject of medical entomology in a practical manner, which is especially suitable for physicians, health officers, as well as entomologists. The field is a large one and the material cannot be treated in an exhaustive manner and, in fact, this is not the intention of the author, who "aims rather to give only the essentials for public health practice which may be found to be helpful and worth while." In this, Dr. Fox has been remarkably successful. He has written a volume which, with the descriptions accompanying the many excellent illustrations, will allow the reader to become quickly familiar and sufficiently conversant with the subject without the unnecessary expenditure of time and the reading of a much larger amount of material.

The first part deals with the classification, identification, anatomy, life history, general considerations, key to sub families, etc. The second part discusses the diseases which are carried by anthropods among human beings.

JOSEPH C. REGAN

APPROACHING MOTHERHOOD Questions and Answers of Maternity. By GEORGE L. BRODHEAD, M.D. Second Edition. 12mo of 193 pages. New York, Paul B. Hoeber, Inc., 1925. Cloth, \$1 50

This is the second edition of a little book which well deserves its popularity. Written for the prospective mother in the form of questions and answers, it meets her needs perfectly. Here and there are blank pages on which to write questions for the doctor. A handy volume, and one that might be read with much profit by those who call themselves practical nurses. At present popular fallacy, superstition and hearsay make up a large part of their knowledge. Here is a real opportunity for them, as well as for the young mother.

C. A. G.

LOCAL ANESTHESIA SIMPLIFIED By JOHN JACOB POSNER, D.D.S., New York Chief Dental Department Harlem Dispensary. Fifty-five illustrations. The C. V. Mosby Co., St. Louis, Mo. 1924. Price \$3 50

In a very logical manner, the author guides the reader to the most practical methods of controlling pain and so makes it possible for the dentist to perform with ease the most difficult and painful operations.

Rightly, the author makes a strong plea for a better method of infiltration anaesthesia in the maxilla and calls it "Supraperiosteal Injection."

He prefers this simple method rather than the indiscriminate use of conduction anaesthesia in the maxilla which carries the potentialities of serious complications.

The short text, with its many illustrations, gives a complete story of Local Anaesthesia and makes this book a well needed little volume for the busy practitioner.

VICTOR STOLL

OCULAR THERAPEUTICS A Manual for the Student and the Practitioner. By ERNST FRANKE, M.D. Translated by CLARENCE LOEB, A.M., M.D. Oculist to The Michael Reese Hospital Chicago, Ill. The C. V. Mosby Co., St. Louis, 1925. Price \$3 50

The book is divided into two parts, the first of which takes up general and local treatment of eye conditions and the second the treatment of the special structures which go to make up the eye and its appendages. In the chapter dealing with general treatment, tuberculosis is given first consideration. The manner of the curative action of tuberculin and the dosage of the various kinds used—old, new and bacillary emulsion—together with its administration subcutaneously, percutaneously and intracutaneously, are given in detail. Syphilis is taken up in a similar manner, special attention being paid to the use of some of the newer forms of arsenic and mercury. Serum therapy and the use of milk and other agents in the so-called "irritative treatment," combined with a description of the manner of employment of the various forms of light, electricity, heat, baths, etc., help complete this chapter. Local treatment is dealt with under the following headings: mechanical, warmth and cold, light and ray, medical serum and electrical. The concluding chapter deals with the treatment of the various conditions affecting the individual structures which enter into the formation of the eye. The manner in which the subject matter is arranged makes the book of great value, as the reader can obtain the relative merit of every therapeutic measure by perusing the first chapter and by referring to the second chapter the application of these methods are shown in the treatment of the conditions which constitute the practice of ophthalmology.

WM. F. C. STEINBUGLER

PHYSIO-THERAPY IN GENERAL PRACTICE, AND FOR THE USE OF MASSEUSES By E. BELLIS CLAYTON, M.B., B.Ch. (Cantab.) Director Physio-Therapeutic Department, Kings College Hospital, London. William Wood and Co., New York, 1924. Price, \$3 50

An excellent little volume which can be highly recommended to the entire medical profession.

The simplicity and preciseness of the text makes the little book very valuable to readers who have not even a rudimentary knowledge of this form of therapy.

Chapters II and III dealing with the after care of injuries is replete with most modern thoughts, especially can be mentioned the point that struck the reviewer's attention in his recent visit to the British clinics. That is of promoting muscular activity by first producing a relaxation of the antagonistic muscles.

Other chapters dwell upon useful, physical aids in deformities of the spine and extremities, in respiratory diseases, abdominal treatments, arthritis and diseases of the nervous system.

It is a very valuable guide for those who desire to lay a firm foundation on which to build a knowledge of physio-therapy.

B. KOVEN

AN INDEX OF TREATMENT By Various Writers. Edited by ROBERT HUTCHINSON, M.D., F.R.C.P., Physician London Hospital, and JAMES SHERREN, C.B.E., F.R.C.S., Surgeon London Hospital. Ninth Edition. Revised and Enlarged. William Wood and Co., New York, 1925. Price, \$12 00

This is a typical English product—one might say an essentially English product in that it presents an epitome of the teachings and practice in the London Hospitals. Here is presented an immense amount of well written detail about almost every pathologic process known to medicine.

The numerous contributors are especially able, by their positions and experience, to present their subjects thoroughly, and do so in very facile manner. The American profession will welcome this book as a companion to the best it has.

M. F. DEL.



FIG. V

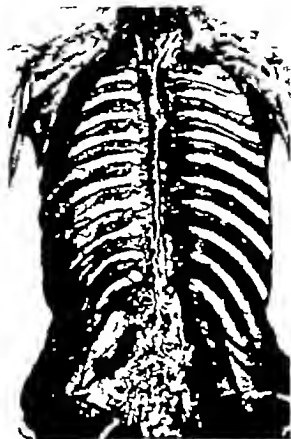


FIG. VII



FIG. VI



FIG. VIII



FIG. IX



FIG I

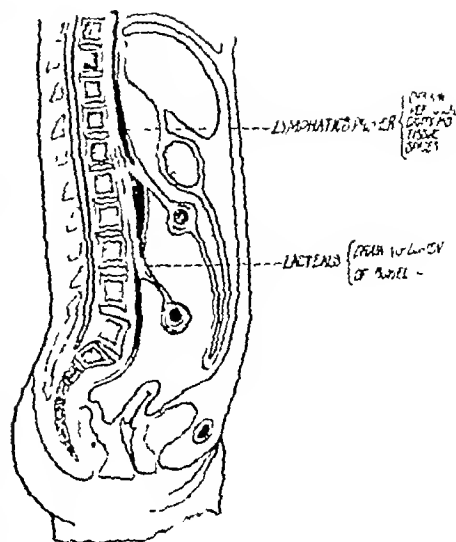


FIG II

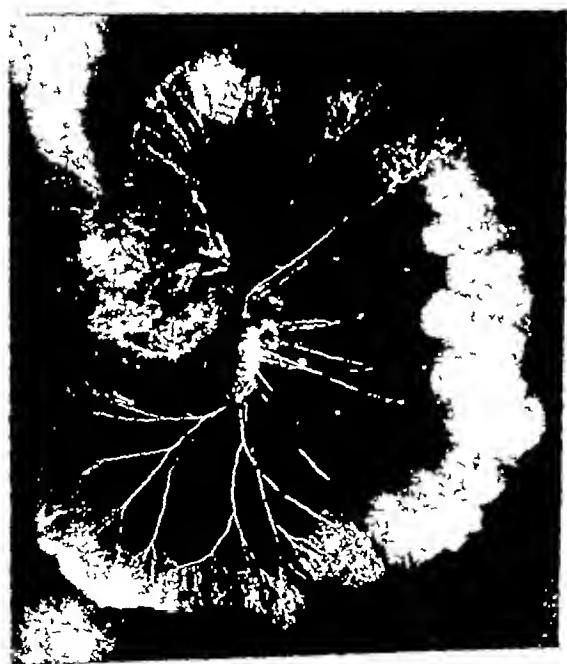


FIG. III



FIG IV



FIG. XII

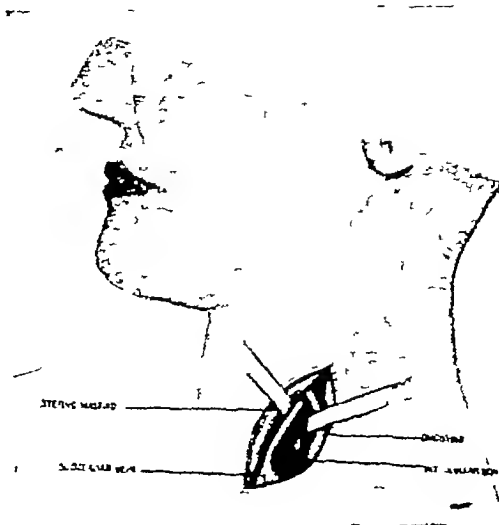


FIG. XIII

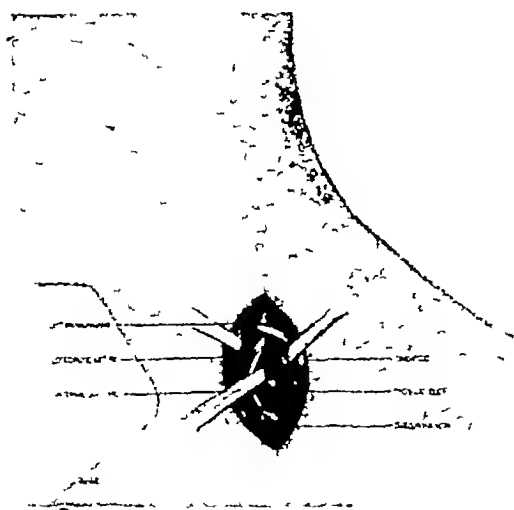


FIG. XIV

results are the best. They show that when the duct drainage is resorted to soon after the first operative procedure, the results are also good. But when an extended period intervenes between the initial procedure and the duct drainage, the results may be almost negative. This is what might be expected, for draining the thoracic duct will not influence the toxæmia which has been allowed to continue a long time for then it has too firm a hold upon the patient. The operation should be chosen early for it will not produce a miracle upon a moribund patient.

At this time it is rather early to quote figures as only a comparatively few operations have been done, and these have all been on the so-called hopeless cases. However, the records of sixteen cases which I have been able to collect and which are appended, show that the mortality rate of these cases has been reduced thirty to forty per cent.

The following cases comprise those reported in various medical journals and others not reported.

Case 1—Female, age 9. Pneumococcic peritonitis. Lymphaticostomy, October 10, 1922, under intratracheal ether. Half a cubic centimeter of pus was aspirated from the right side of the peritoneal cavity for examination and contained pneumococcus IV. The patient was exsanguinated and transfused 600 cubic centimeters being drawn off and 800 cubic centimeters introduced. Culture from the duct fluid was sterile as was also the blood culture. Lymph drained for three days. Voluntary bowel movement on second day. Gauze removed on second day, rubber tube on the sixth when the patient was sitting up on soft diet. Rapid recovery. Discharged cured on October 30. Today she is in perfect health with a normal abdomen and a scar on the neck which is hardly noticeable (Dr Costain⁴).

Case 2—Female, age 17. Puerperal peritonitis. Lymphaticostomy May 14, 1923, under one per cent novocaine. Culture and smears from the duct contained pneumococci. Blood culture negative. Free duct drainage for four days. Rapid recovery. Discharged cured on July 4 (Dr Edwards⁵).

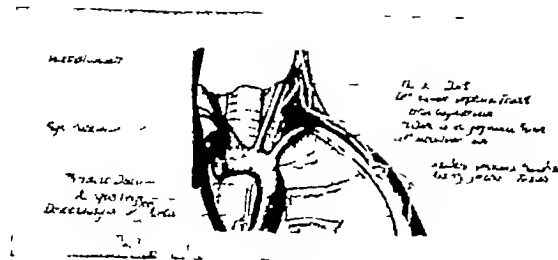


FIG. X



FIG. XI

cessful drainage of the duct the dogs recovered.

The experimentation has been repeated by other observers on two occasions. Dr. Newman and Prot. Wells reported¹ a series of experiments in which the results were almost identical with my own. Drs. Lehman and Copher recently reported² experiments in which the results were directly opposite, not one of their duct operations being successful. They, however, employed a different method of draining the duct, that of ligating and severing the duct instead of merely opening it. What happens when the duct is divided is that the proximal cut end retracts into the mediastinum, on account of the action of the involuntary muscle fibres in the duct, and death is hastened. Their work is of importance in that it indicates that division of the duct must not be undertaken.

The operation itself is best done with local anaesthesia, except in young children where this may not be feasible. Little or no anaesthesia is required beneath the skin. Figures 12, 13, and 14 are drawings of different stages of the operation. When the duct is secured a single strand of plain catgut is used to ligate it a short distance from the vein. A longitudinal incision about one quarter to half an inch long is made on the abdominal side of the ligature. If the duct is sufficiently large a V-shaped incision may give better

drainage. A narrow strand of rubber tissue, or a strand of silk-wormgut is passed down the duct a short distance. Sometimes this is impossible on account of the presence of a valve. The loose ends of the catgut ligature and the drain in the duct are secured to the skin, leaving sufficient length for retraction. Narrow plain gauze is loosely applied around the duct and out of the wound. A soft rubber tube is placed to keep the wound open and the wound is partially closed. The dressings are kept moist with normal saline or sodium citrate solution. The gauze is carefully replaced on the second day. The rubber tube and duct drain are left until a sinus has formed.

In the after treatment the feature of greatest importance is the giving of fluids, especially by mouth, in order to ensure a continual flow of lymph. The introduction of tap-water into the intestine has been shown to cause a rapid marked increase in the flow of lymph from the duct.³

The operation has been performed by various operators in cases of pneumococcic peritonitis, appendiceal peritonitis, perforated duodenal ulcer, puerperal peritonitis, perforated gastric ulcer, and ruptured intestine. In practically all of the cases it was noted that there was a rapid marked improvement in the patient's condition following the duct operation. The sooner it was done the better were the results. This fact is best shown by instancing six of the above cases: three in pneumococcic, and three in appendiceal peritonitis.

Case 1—Pneumococcic peritonitis. Duct drained as a single procedure when the diagnosis was made. Rapid recovery.

Case 10—Pneumococcic peritonitis. Abdomen opened and after diagnosis was confirmed the abdomen was drained and the duct operation done. Recovery.

Case 8—Pneumococcic peritonitis. Abdomen drained. Thirteen days later on recurrence of symptoms the duct was drained. Death in nine days.

Case 3—Appendiceal peritonitis. Abdomen opened and the appendix removed. Practically no pus formation. Abdomen closed and duct drained. Rapid recovery.

Case 7—Appendiceal peritonitis. Abdomen opened and appendix removed. Abdomen drained on account of pus. One day later the duct was drained. Good recovery.

Case 13—Appendiceal peritonitis. Abdomen opened and drained on account of pus. Appendix was not removed. One week later when the patient was in extremis the duct operation was done. Death in thirteen days.

These six cases indicate that when the duct drainage is done, upon the establishment of the diagnosis, either as a single measure or along with whatever other procedure is necessary, the

estimation of the quantity of lymph drainage was several quarts in twenty-four hours. Distension was greatly reduced and patient was taking fluids. On September 10 the lymph flow lessened markedly and patient had some return of symptoms. Castor oil was given. Next day there was a little drainage from the duct. Patient felt better. Bowel moved and there was considerable discharge from the opening in the bowel. The feces coming from the fistula were alkaline in reaction. On September 16 the patient's general condition was so much improved that it was thought he would recover. Three days later he developed a hiccough with a return of abdominal symptoms indicating a continuation of disease around the appendix. His condition excluded any possibility of further operative procedure and he died on September 20, thirteen days after lymphaticostomy. At post mortem the appendix was found leaking fecal matter into a large abscess extending up to the diaphragm. The remainder of the abdomen, save around the drainage wound, was normal in appearance, except for some loose adhesions. No other pathology was found (Dr Costain).

Case 14 Female adult. Seen in collaboration with a gynaecological colleague. Patient had a septic peritonitis with large quantities of gas in the peritoneum following a septic puerperium. The duct was opened and the abdomen drained. The patient lived three weeks and ultimately died of septic pneumonia. There was certainly marked improvement following the drainage of the duct (Dr Cooke).

Case 15 Male, age 32. Perforated duodenal ulcer with diffuse peritonitis. Seen a week after the abdomen had been drained. There was cyanosis, great distension and fecal vomiting. No

peristaltic action could be detected. Lymphaticostomy on January 5, 1925, under one half per cent novocaine for the skin. Very little lymph flowed on opening the duct. The duct failed to drain and there was no improvement in the patient's condition. He died on the second day. No post mortem (Dr Costain).

Case 16 Female, age 5. Perforated appendix with diffuse peritonitis. The abdominal condition was dealt with and then the duct was drained only in small quantities. The child made a good recovery (Dr Cooke.)

One observes, from a survey of these cases, that the average length of time of duct drainage was five days. In one case where the duct failed to drain there was no change in the patient's condition. Organisms were found in the duct fluid in two cases. This finding, however, is of secondary importance for it is the toxins flowing through the duct which lead to a fatal termination in peritonitis.

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POLYCYSTIC DISEASE OF THE KIDNEYS—REPORT OF SIX CASES*

By JOSEPH SCHWARTZ, M. D.,

NEW YORK CITY

BY polycystic disease or degeneration of the kidneys, we understand a congenital maldevelopment in which one or, more commonly, both kidneys show a conglomeration of cysts, separated by fibrous septa or compressed kidney tissue.

It is an exceedingly interesting lesion of the kidneys, as its similarity in its clinical manifestations to other renal lesions may be so striking as to lead to errors in diagnosis. The condition is not common, but yet by no means as infrequent as formerly supposed. Its frequency may be inferred from the report of Preitz, at Keil University, who found it 16 times in 10,000 autop-

sies, and Garceau, at the Boston City Hospital, who found it 10 times in 2,429 autopsies. Still others believe it occurs more frequently. Our improved diagnostic acumen and clinical sense have greatly enhanced our means of recognizing them. Yet, in spite of this, owing to its atypical manifestation in some individuals and lack of symptoms in others, autopsies, much to our chagrin, have on repeated occasions revealed their presence in individuals unsuspected of this malady.

I wish to report six cases admitted to Lebanon Hospital, five females, including one new-born, and one male. In only three was the diagnosis definitely established clinically. In two others it was suspected while in the last it was an accidental finding at the autopsy.

*From the Surgical Service and Department of Pathology, Lebanon Hospital.

Case 3—Male, age 48 Perforated appendix with diffuse peritonitis Midline incision and appendix removed There were only slight smears of pus so the abdomen was closed Recovery in this case was considered almost out of the question so a lymphaticostomy was done after the abdomen had been closed The operation was performed on April 15, 1924 Culture of the lymph was sterile Free duct drainage for seven days when there was sudden diminution and a discharge of pus from the abdominal wound Good recovery Discharged with both wounds healed on May 10 (Dr Cooke⁶)

Case 4—Male, age 32 Perforated appendix with diffuse peritonitis Appendix removed and abdomen closed Three days later duct was drained Death six hours later (Dr Colin Mackenzie⁷)

Case 5—Male, age 43 Perforated duodenal ulcer Thirty-six hours duration Abdomen opened and perforation closed and protected by omental graft Abdomen closed Lymphaticostomy Good recovery (Dr Colin Mackenzie)

Case 6—Male, age 51 Perforated gastric ulcer Fourteen hours duration Patient desperately ill Opened abdomen and closed ulcer Omental graft Lymphaticostomy Death in four hours (Dr Colin Mackenzie)

Case 7—Male, age 10 Perforated appendix with diffuse peritonitis The abdomen had been opened a day before, the appendix removed and the abdomen and ileum, close to the caecum, drained Lymphaticostomy under nitrous oxide and oxygen on April 21, 1924 The duct drained for five days Good recovery (Dr Costain⁸)

Case 8—Female, age 4 Pneumococcal peritonitis Abdomen drained on February 20, 1924 Improvement for a week and then a recurrence of symptoms Lymphaticostomy on March 5 The duct drained freely There followed a marked improvement in the patient's general condition The distension and tenderness disappeared This improvement continued for five days, during which time a very free discharge of lymph was observed from the neck wound, although the small drain had been removed from the opening into the duct It was then noticed that, although the abdominal condition appeared to be most satisfactory and the child was taking abundant nourishment by the mouth, she seemed to be getting weaker and to be losing weight rapidly On March 14, nine days after the lymphaticostomy had been performed, death took place Lymph was discharging freely up till shortly before the child died In the lymph taken immediately on opening the duct no organisms were present No post mortem was done (Dr Alex Mitchell⁹)

Case 9—Male, age 48 Ruptured intestine Injured underground sixty hours before admission to hospital Live dullness absent Operation on May 9, 1924 On opening the abdomen

the intestine was found matted together with sticky, flaky adhesions, and any hope of finding the rupture was rapidly abandoned A small tube was placed in the nearest loop of distended gut, which was small intestine fairly high up, and another tube in the pelvis for peritoneal drainage As a spinal injection was used, very little ether was required, and practically none was required to perform the lymphaticostomy Temporary improvement and free drainage from the duct occurred for fifteen hours, when the pulse began to increase and the patient died twenty-four hours after operation (Dr D A Mitchell¹⁰)

Case 10—Female, age 10 Pneumococcal peritonitis Abdomen opened and on confirmation of diagnosis, drained, and lymphaticostomy done Free drainage from the duct occurred and the patient made a good recovery (Dr R I Harns, Toronto)

Case 11—Female, age 5 Diffuse peritonitis of obscure origin, thought to be appendiceal Unfortunately a gridiron incision was made and an inflamed, but not perforated appendix found and removed The abdomen was drained Three days later lymphaticostomy was performed Free drainage and undoubted improvement occurred for twenty-four hours, and the drainage continued very free up to the time of death, forty-four hours after the operation (Dr D A Mitchell)

Case 12—Female adult Lower abdominal infection Moribund on admission Abdomen drained and one day later lymphaticostomy was performed There was free discharge of lymph and a little improvement for a day when the patient died Culture from the lymph taken at the time of operation showed *B. coli*, *Streptococcus* and *B. pyocyaneus* No post mortem done (Dr Alex Mitchell)

Case 13 Male, age 47 Diffuse peritonitis from perforated appendix Abdomen had been opened in the midline and drained It had been thought wise not to attempt to remove the appendix Seen a week later, in extremis, and duct operation was done, though it was thought he could not survive The operation was done on September 7, 1924, and no anaesthetic was necessary Lymph flowed freely and coagulated rapidly Morphine was given at intervals to keep him at rest Saline interstitially and saline with glucose per rectum Water by mouth Next day he said he felt ten times better Lymph was flowing freely It was slightly greenish and coagulated rapidly To hasten recovery it was thought advisable to open the lowest coil of small intestine presenting in the abdominal wound which had been forced open prior to the duct drainage, by the extreme distension A tension suture had already partially cut through the intestine and this opening was enlarged allowing escape of feces and gas On September 9 au

past few months he was always well. Family history is negative. On examination, the man appeared in good health and rather obese. In the right side of the abdominal cavity was palpated a large mass extending from the ribs to the crest of the ilium and reaching to the left of the umbilicus. It was hard, smooth and painless. Temperature, pulse, respiration were normal. Laboratory findings: Blood and Wassermann negative. Urine contained a trace of albumin, sugar 11%, no casts or blood. Phenolphthalein 20% first hour, 50% second hour. Blood chemistry: N P N 50 mg per 100 cc of blood. Urea 28 mg. Uric acid 4.5 mg. Cholesterol 1.4 mg, creatinine 2mg, sugar 160 mg. Blood pressure 160 systolic, 100 diastolic.

The following conditions were considered: retroperitoneal sarcoma, kidney tumor and cystic kidney. An exploratory was done on August 16, 1923, through a right rectus incision at the level of the umbilicus. The colon was found pushed anteriorly and to the left. On approach of this mass it was discovered that we were confronted with a polycystic kidney. On palpation of the other kidney it was found to be much smaller, but also polycystic. No surgical procedure was instituted. The abdomen was closed in the usual manner. The day following the operation there developed subcutaneous emphysema in the area surrounding the incision. Some fluctuation was also present. Another incision over this area disclosed the presence of a sero sanguinous fluid, the culture of which proved negative. The emphysema spread rapidly downwards, involving the scrotum, which became gangrenous and foul smelling in a few hours. Temperature rose to 104° and pulse rate to 120. The patient was desperately ill and died several hours later from what appeared clinically a gas bacillus infection. Cultures under aerobic and anaerobic conditions failed to show the presence of any organism. An autopsy disclosed the right kidney several times the normal size, weighing 1,300 gms (Fig 2). At each pole is a large cyst about the size of a small grape fruit. In between there is apparently normal kidney substance, studded here and there with small cysts. The left kidney weighed 750 gms and contained many cysts separated by normal looking kidney tissues. The microscopic section showed the presence of many cysts separated by renal tissue showing minimal changes. Were it not for this unusual and rare post operative complication, this patient might have survived for an indefinite period.

Case 5

R. S. Female, married, age 44, admitted June 3, 1923, complaining of pain in the lumbar region, headache, nausea, vomiting and bloody urination. Her family and personal history were negative. She had five children, all living and well. Her present trouble she attributes to a cold con-



FIG 2

tracted three months prior to her entrance to the hospital. From then on she experienced daily headaches and loss of appetite. At times she would feel nauseated and would vomit. For about two weeks before admission there developed a dull pain in both lumbar regions. This would at times radiate to the groin, when she would also notice that her urine was decidedly blood tinged.

On examination she appeared very pale, emaciated and sick. Temperature 101°, pulse 100. Head and chest were negative. In the right abdominal quadrant, immediately below the liver, was palpated an irregular mass the size of an orange, which was tender and movable on respiration. On the left side, also corresponding to the kidney, a smaller mass was felt. There was marked costo-vertebral tenderness. No edema of extremities. Laboratory findings: Urine contained a heavy trace of albumin, hyaline and granular casts, pus and blood. Phenolphthalein, 5% first hour, 10% second hour. Blood, R. B. C 3,500,000, W. B. C 12,000, polys 82%, lymphs 18%. Wassermann was negative. Blood chemistry: N P N 173 mg per 100 cc of blood, urea 111 mg, uric acid 11 mg, creatinine 3.3 mg, sugar 1.43. Blood pressure, 160 systolic, 100 diastolic. Before death the systolic rose to 200 and diastolic 110.

Cystoscopy revealed blood coming from both kidneys. Through a ureteral catheter, I injected 7 cc of a 20% solution of sodium bromide into the pelvis of the right kidney. The pyelogram showed a filling defect of the lower calyces, suggesting the possibility of a new growth. In view of this bilateral mass we were inclined to believe this condition as polycystic disease of the kidneys. During her three weeks' stay at the hospital she became progressively worse and finally lapsed into coma and died.

The autopsy revealed two large polycystic kidneys, with hemorrhage and suppuration in many of the cysts (Fig 3).

Case 1

B G An infant which died one hour after birth. It was a female full-term baby—normal delivery. Immediately upon birth, the child began to breathe very feebly and with great difficulty. No cry could be induced. The mother, apparently in good health, had two previous children, one of which died soon after birth from a similar affection. The other child is living and well. The new-born appeared well developed, like any normal baby, but presented a large protuberant abdomen in which was palpated a mass the size of an orange in each flank. These tumors were round, regular, and filled the abdominal cavity. It was suspected that the infant had polycystic kidneys. The autopsy confirmed this opinion.

The kidneys were several times the normal size. The kidneys were regular and firm (Fig



FIG 1

1), each weighing approximately 250 gms. On cross section the appearance was like a fine sponge, the minute cysts of uniform size, the capsule was slightly adherent. The microscope revealed large spaces, apparently cystic dilatation of tubules lined with low cuboidal epithelial cells. They were separated by dense, richly cellular fibrous connective tissue in which were embedded many tubules of the embryonal type. Some normal appearing tubules and glomeruli were also seen scattered through the section. No other congenital anomalies were found.

Case 2

S N Female, married, age 67, admitted to Lebanon Hospital October 3, 1920. Her family and personal history were negative. She had no children. Two years ago she was at this hospital, treated for nephritis, and was discharged as improved after a two-week stay. Up to her present trouble she has lived with apparent comfort. Three days ago, she experienced a persistent headache, nausea and occasional vomiting. One day prior to admission, she became very drowsy and was inclined to sleep most of the day. On admission the patient was very drowsy and responded very poorly to questions. Eyegrounds showed an albuminuric retinitis.

Heart and lungs were negative. Abdomen was negative. Laboratory findings: Blood and Wassermann negative. Urine, Sp. Gr. 1013, contained a moderate amount of albumin, hyaline and granular casts. Phenol-phthalein was eliminated 5% first hour, 10% second hour. Blood pressure, 130 systolic, 75 diastolic. Blood chemistry, N P N 130 mg per 100 cc of blood. Urea 70 mg. Creatinine 4 mg. Uric acid 6 mg.

The diagnosis was obviously nephritis with impending uremic coma. Two days after admission she lapsed into coma and died. On post mortem, two polycystic kidneys slightly larger than normal were found. On microscopic section were seen large cystic spaces lined with flat epithelial cells. Separating these cysts were irregular fibrous bands showing a marked round cell infiltration. Embedded in these strands of connective tissue were atrophic glomeruli and tubules undergoing organization. The blood vessels showed marked thickening of all coats.

Case 3

F G Female, married, age 47, admitted to Lebanon Hospital October 10, 1922. Her family and personal history were negative. All of her three children are living and well. Her present illness began two weeks ago with pains in the lumbar region, headache and fever. Her pain up to the time of admission was increasing in severity and would at times radiate to the groin on the left side. There were chilly sensations at times. On admission her temperature was 102°, pulse 100. She presented two irregular masses, each the size of an orange, and corresponding to the kidneys. The left was very tender and elicited a positive Murphy sign. Laboratory findings: Blood W B C 13,000, poly 85%, lymph 15%. Urine contained trace of albumin, hyaline and granular casts, a moderate amount of pus cells and some red cells. Blood pressure systolic 140, diastolic 85. Blood chemistry normal. Cystoscopy and ureteral catheterization revealed pus and blood coming from left kidney. The condition was diagnosed as polycystic kidneys with an infection in the left. The patient appeared very ill and an immediate operation was deemed advisable. The left kidney was exposed through a lumbar incision, punctured all accessible cysts, some of which were infected and contained sanguinous fluid. The patient's convalescence was uneventful, so was discharged three weeks after the operation. The wound was almost entirely healed, except for a small discharging sinus. It was later ascertained that she died within six months of uremia.

Case 4

J S Male, age 61, admitted August 14, 1923, complaining of a large mass in the right of the abdomen and sense of weight. This tumor was accidentally discovered three weeks ago by a physician in the course of an examination. Except for an occasional attack of diarrhea, in the

past few months he was always well. Family history is negative. On examination, the man appeared in good health and rather obese. In the right side of the abdominal cavity was palpated a large mass extending from the ribs to the crest of the ilium and reaching to the left of the umbilicus. It was hard, smooth and painless. Temperature, pulse, respiration were normal. Laboratory findings: Blood and Wassermann negative. Urine contained a trace of albumin, sugar 11%, no casts or blood. Phenolphthalein 20% first hour, 50% second hour. Blood chemistry: N P N 50 mg per 100 cc of blood. Urea 28 mg. Uric acid 4.5 mg. Cholesterol 14 mg, creatinine 2mg, sugar 160 mg. Blood pressure 160 systolic, 100 diastolic.

The following conditions were considered: retroperitoneal sarcoma, kidney tumor and cystic kidney. An exploratory was done on August 16, 1923, through a right rectus incision at the level of the umbilicus. The colon was found pushed anteriorly and to the left. On approach of this mass it was discovered that we were confronted with a polycystic kidney. On palpation of the other kidney it was found to be much smaller, but also polycystic. No surgical procedure was instituted. The abdomen was closed in the usual manner. The day following the operation there developed subcutaneous emphysema in the area surrounding the incision. Some fluctuation was also present. Another incision over this area disclosed the presence of a sero sanguinous fluid, the culture of which proved negative. The emphysema spread rapidly downwards, involving the scrotum, which became gangrenous and foul smelling in a few hours. Temperature rose to 104° and pulse rate to 120. The patient was desperately ill and died several hours later from what appeared clinically a gas bacillus infection. Cultures under aerobic and anaerobic conditions failed to show the presence of any organism. An autopsy disclosed the right kidney several times the normal size, weighing 1,300 gms (Fig 2). At each pole is a large cyst about the size of a small grape fruit. In between there is apparently normal kidney substance, studded here and there with small cysts. The left kidney weighed 750 gms and contained many cysts separated by normal looking kidney tissues. The microscopic section showed the presence of many cysts separated by renal tissue showing minimal changes. Were it not for this unusual and rare post operative complication this patient might have survived for an indefinite period.

Case 5

R. S. Female, married, age 44, admitted June 3, 1923, complaining of pain in the lumbar region, headache, nausea, vomiting and bloody urination. Her family and personal history were negative. She had five children, all living and well. Her present trouble she attributes to a cold con-



FIG. 2

tracted three months prior to her entrance to the hospital. From then on she experienced daily headaches and loss of appetite. At times she would feel nauseated and would vomit. For about two weeks before admission there developed a dull pain in both lumbar regions. This would at times radiate to the groin, when she would also notice that her urine was decidedly blood tinged.

On examination she appeared very pale, emaciated and sick. Temperature 101°, pulse 100. Head and chest were negative. In the right abdominal quadrant, immediately below the liver, was palpated an irregular mass the size of an orange, which was tender and movable on respiration. On the left side, also corresponding to the kidney, a smaller mass was felt. There was marked costo-vertebral tenderness. No edema of extremities. Laboratory findings: Urine contained a heavy trace of albumin, hyaline and granular casts, pus and blood. Phenolphthalein, 5% first hour, 10% second hour. Blood, R B C 3,500,000, W B C 12,000, polys 82%, lymphs 18%. Wassermann was negative. Blood chemistry: N P N 173 mg per 100 cc of blood, urea 111 mg, uric acid 11 mg, creatinine 3.3 mg, sugar 143. Blood pressure, 160 systolic, 100 diastolic. Before death the systolic rose to 200 and diastolic 110.

Cystoscopy revealed blood coming from both kidneys. Through a ureteral catheter, I injected 7 cc of a 20% solution of sodium bromide into the pelvis of the right kidney. The pyelogram showed a filling defect of the lower calyces, suggesting the possibility of a new growth. In view of this bilateral mass, we were inclined to believe this condition as polycystic disease of the kidneys. During her three weeks' stay at the hospital she became progressively worse and finally lapsed into coma and died.

The autopsy revealed two large polycystic kidneys, with hemorrhage and suppuration in many of the cysts (Fig 3).



FIG 3

Case 6

H. M. Female, married, age 46, admitted April 5, 1924, complaining of headache, nausea, weakness and multiple abscesses of the body and scalp. Family history and personal history negative. She has two children living and well. For the past four years the patient was aware of the presence of two large tumors in her abdomen. This, however, caused her no discomfort and did not incapacitate her from her usual household duties. At times she would feel a sensation of weight in her abdomen. For the past few weeks she was troubled with daily persistent headaches. As a result her appetite was lost. So severe were her headaches that she would become nauseated and would even vomit. Two weeks prior to admission, abscesses developed on her body. On admission her temperature was 101, pulse 95. On her scalp was a large confluent abscess. Small abscesses were also present on the body and abdominal wall. Heart and lungs negative. Abdominal examination revealed two very large masses meeting in the mid line and filling the abdominal cavity. They were slightly irregular, not tender. Laboratory findings: Blood, W. B. C. 23,000, poly 95%, lymphs 5%, Wassermann negative. Urine contained a trace of albumin, no casts, blood or pus. Blood chemistry: N. P. N. 176 mg per 100 cc of blood, urea 115 mg, uric acid 7.5 mg, creatinine 3.6 mg, sugar 112 mg. Phenolphthalein secretion, 5% first hour, 15% second hour. Blood pressure, 144 systolic, 80 diastolic. It was quite obvious that the patient had polycystic kidneys. The infections on her head and body were incised and drained under local anesthesia. Her condition became progressively worse. Twitchings of the right side of the face and right upper and lower extremity developed. After appearing very drowsy, uremic coma developed and the patient died one week after admission.

On post mortem were found two enormously large cystic kidneys, each weighing approximately 1,650 gms (Fig 4). Many of the cysts contained blood and pus. The microscopic picture was similar to the previous case. The liver was brown, slightly enlarged, and contained many



FIG. 4

cysts under the capsule and deep in the substance of the liver. These cysts ranged in size from a pinhead to a grape. No other abnormalities were found.

ETIOLOGY

The origin of this most interesting pathological lesion has long been a subject of discussion and theoretical speculation. The literature is abundant with many theories concerning the genesis of these cysts, but most of these views have long been discarded because of the lack of sufficient evidence to support them. There still remain three outstanding views which claim many adherents: 1. Neoplastic, 2. Retention, 3. Congenital. Sabourin, in supporting the neoplastic theory, maintained that there was a primary cirrhosis of the kidney which compromised the epithelial cells, causing their proliferation into cysts. Nauwercck, Hufschmid and others believed it to be an adenocystoma, the primary lesion being a foetal adenoma with secondary cyst formation. Virchow, in advancing the retention theory, first claimed that the cysts were the result of an obstruction in the large collecting tubules by uric acid deposits. Later, he expounded the inflammatory origin of these cysts believing that there was an intrauterine nephritis which gave rise to an increase in connective tissue. The latter compromised the collecting tubules, causing their closure and retention of urine with subsequent cystic dilatation of the proximal part of the tubule.

The congenital theory seems to enjoy the greatest support and is being regarded more favorably by modern pathologists. Ribbert, Still and others were of the opinion that the lesion is due to a faulty embryological development.

where the metanephros has abnormally blended with the mesonephros which resulted in a failure of union between the convoluted and straight tubules

The age at which we commonly see these cases and at which they manifest themselves varies between 45 and 65. Cases have been observed at all ages. The youngest of our series was a new-born the oldest 67. Homney observed two cases at 88. It is more common in females. Of our six cases there were five females. Of Sieber's collected cases, there were 116 females and 82 males. In all of our cases both kidneys were involved. Luzzato noted its bilateral existence in 185 out of 226 cases. Sieber noted that it was bilateral in 140 of his cases. Several members of the same family may be affected, as in the case of the infant. A familial and hereditary tendency has been noted by many observers. Crawford reported a case of polycystic kidneys in whose family tree the condition was traced back four generations. Spreut cites a case of a woman with cystic kidneys, with five other members of the same family similarly affected.

SYMPTOMS

It may be of interest to note that these patients may be well advanced in years without symptoms referable to the urinary apparatus or even knowing that there is anything amiss with their kidneys. Eight such accidental findings occurred in Sieber's series, seven others in Ritchie's 88 collected cases.

Patients generally present themselves because of pain, hematuria, abdominal tumor, or more commonly in the terminal stage with symptoms of renal insufficiency manifesting itself in headache, anorexia, nausea and vomiting.

The pain is commonly described as dull ache or sense of weight in the back or abdomen. It may even be as severe as the pain accompanying the passage of a renal calculus thru the ureter. Tenderness and rigidity are present if complicated by infection of the cysts or pelvis of the kidney.

Hematuria occurs irregularly in about one third of all cases. It may be the first sign of a diseased kidney and often leads to an erroneous diagnosis of neoplasm. The passage of small clots induces a renal colic simulating that produced by a passing stone.

The tumor is usually bilateral and is generally discovered in the course of a routine physical examination or in some instances by the patient. In obese individual or where these masses are just slightly enlarged their palpation is accomplished with great difficulty or not at all. These enlarged kidneys are hard, irregular, and even nodular. They are tender in the presence of an infection.

These earlier manifestations of a renal lesion are succeeded by a train of general symptoms,

such as headache, nausea and vomiting, indicative of a progressive renal insufficiency terminating in coma and death, in which manner most of these patients expire. Four of the patients reported here made such exodus. Still reports 26 cases, all terminating after a state of uremic coma.

The urine, which is identical to that found in interstitial nephritis, shows a large output in twenty-four hours, except prior to death, when it is much diminished. Varying amounts of albumin are present. Casts are not a constant finding. Blood and pus are found in about one third of cases.

From a study of the above cases, two stages may be observed clinically. 1. Tumor, 2. nephritis.

In the tumor stages, these patients may be cognizant of the presence of a mass in the abdomen and are not at all incapacitated from their usual duties. If the kidneys are very much enlarged, then they are apt to complain of a sense of pressure in the abdomen. The urine at this time shows very slight, if any, changes. There is no retention of nitrogenous material in the blood, and the blood pressure is normal or just a little above. This stage may last indefinitely before kidney destruction advances to the stage where the kidneys fail to function. One of our patients, Case vi, was known to have two large tumors (kidneys) for four years before she showed evidence of a failing kidney. Another, Case iv, who had two large kidneys apparently for a great length of time, would have undoubtedly lived indefinitely but for the post-operative complication.

In the second or nephritic phase, there is all evidence of a kidney insufficiency. They generally complain of headache, nausea and vomiting. There is already nitrogenous retention in the blood and an increase in blood pressure. From this point on this disturbance in renal function is progressive and in a very short time uremic coma supervenes terminating in death. One of our patients, S. N. lived for three years after the discovery of an interstitial nephritis, with apparent comfort.

PATHOLOGY

Both kidneys being usually involved vary in size from normal to several times the normal. They are irregular and studded with cysts ranging in size from a pinhead to a grape fruit. If the cysts are uniform in size, there is some resemblance to a bunch of grapes. The color of each cyst varies depending upon its contents. The capsule is very thin and adherent and may form the wall of some of the surface cysts. On cross section, the kidney has the appearance of a honeycomb. The cysts, some of which have coalesced, are separated by fibrous septa and compressed kidney tissue. The fluid in the cysts

is either clear, yellow, and acid, holding in solution the urinary salts, or may be turbid and brown, containing pus, blood, uric acid, crystals and cholesterol. The pelvis is generally the seat of congestion and punctate hemorrhages. Hydro-nephrosis is also not infrequently found.

Microscopic section shows large irregular spaces (cysts), with a fibrous wall varying in thickness, lined with a single layer of flat or polygonal cells. In some, the cells have entirely disappeared, owing to the prolonged pressure within the cyst. Between these cysts there are areas of connective tissue in which are to be seen the remains of the previously functioning kidney tissue. The glomeruli and tubules show marked atrophic changes, with a replacement fibrosis, the end result of the pressure atrophy. There is also a round cell infiltration and arterial thickening. In the earlier cases, where death was caused by some intercurrent disease, apparently normal kidney tissue or with slight productive changes is to be seen. Other congenital malformations, such as cortical adenoma and islands of cartilage, have been described by some observers.

Cysts have been not infrequently found in other organs, the liver being the most frequent site. The ovary, choroid plexus, pancreas, epididymis, bladder, ureter and thyroid are other organs in which they have been noted. Some of the earlier pathologists and exponents of the neoplastic theory presented such findings as evidence of metastasis from the cystic kidneys which they regarded as malignant. Anomalies, such as hair lip, cleft palate, club foot and supernumerary toes have also been observed.

DIAGNOSIS

The presence of bilateral tumors corresponding to the kidney region, a hypertension and signs of a nephritis should be regarded as pathognomonic for polycystic disease of the kidneys. If a unilateral mass is found on examination, although both kidneys may be affected, it might not unnaturally suggest some erroneous diagnosis. The lesions most commonly mistaken for polycystic kidneys are hydronephrosis, pyonephrosis, neoplasm, less often renal lithiasis, T. B. C. and nephritis.

Since the advent of the cystoscope and pyelography, the diagnosis has been established with greater ease. Very often, a definite diagnosis is impossible and only an exploratory or post mortem examination will reveal the true nature of the condition.

PROGNOSIS AND TREATMENT

The condition is very grave, for after the appearance of kidney insufficiency their decline is rapid. It is already a warning that the reserve power of the kidney has been exhausted. In a practical sense, polycystic kidneys with symptoms

may be regarded as a case of advanced malignancy, so that we must resort to palliative measures for relief.

Patients possessing polycystic kidneys without symptoms should be left alone, for their existence may be quite comfortable for many years. However, they must be warned of the seriousness of this lesion, so as to impress upon them the care which must be exercised against adding any unnecessary injury to potentially diseased kidneys. Repeated pregnancies must be advised against, as it undoubtedly shortens the life of our female patients. When there is clinical evidence of a disturbed kidney function, then all efforts must be directed towards aiding elimination as is practiced in the usual nephritides. It is during this stage that some surgeons advocate operative intervention, despite the high mortality. Watson reports a case of polycystic kidneys in whom the symptoms pointed to one kidney which contained several suppurating cysts, thrombosis of the renal vein, with gangrene of the kidney. A nephrectomy caused the patient's survival for six and a half years. He claims that if one kidney is badly damaged as to imperil immediate life, and if the other kidney is reasonably functional, then a nephrectomy may be done.

Rovsing describes several cases in whom he exposed the kidneys to puncture the cysts, thereby releasing the pressure on the remaining kidney substance and prevent it from undergoing further pressure atrophy. The patients showed remarkable improvement, urinary excretion reappeared to a striking degree, pressure symptoms had subsided, in general, such satisfactory results accrued from this procedure that it prolonged life from two to three years.

Payr reports a similar experience and considers a nephrectomy justifiable only in cases of severe and persistent hemorrhage. In a certain class of cases where there is repeated colic, pain and slight hemorrhage, he advises puncturing of all accessible cysts after exposing the kidneys with a small pointed galvanocautery. Such procedure is harmless and temporarily ameliorates the symptoms. Infection of either kidney with threatening sepsis, as in one of the cases reported here, makes operative intervention imperative.

CONCLUSIONS

- 1 Although there is no conclusive proof as to the etiology of this lesion, yet all evidence seems to be in favor of the congenital theory.
- 2 The condition is generally bilateral and more common in females.
- 3 Several members of one family may be affected.
- 4 The largest proportion of cases is seen in the terminal or nephritic stage, with pronounced signs and symptoms of a chronic nephritis.
- 5 Operative intervention, although accompanied by a high mortality, is indicated in a very small number of cases where there is persistent severe pain and hemorrhage or where sepsis imperils the immediate life of the patient.

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SHORTENED HOSPITALIZATION FOR DIABETIC PATIENTS

By H N COOPER, M D,
WATERTOWN NEW YORK

DIABETES is preeminently an economic problem to its victims. The disease has a life long attachment. These patients must be more or less continually under the supervision of a physician. The financial loss, in terms of medical charges and loss of earning throughout the various periods of invalidism, probably total as much or more as any other disease. The attending physician's duty is to recognize this and to cooperate in minimizing this feature.

Diabetes is a disease that should be cared for by the general practitioner. As pointed out recently by Haven Emerson, it is increasing rapidly in its incidence. As a cause of death despite the use of insulin, it is also increasing. If this present rate of increase is maintained for ten years more, it will rank with cancer and tuberculosis as a cause of death. This startling fact means that to prevent fatal outcome of the disease, the family doctor must assume the relatively simple but intelligent control of his patients. He must also seize every opportunity to lessen the economic loss the patient encounters.

The treatment of diabetes resolves itself into two phases. First the estimation of the actual ability the patient has to use sugar, or in other words his tolerance. Second maintaining the optimal diet, with or without insulin. The complication of diabetes should rather be cared for by a specialist.

As in most conditions, prompt and energetic hospitalization results in earlier return to normal and a much lessened total economic loss to the patient. The duration of the hospital stay can also be reduced to a minimum by using a standardized form of regulation. The haphazard curtailment of diet, indefinite orders to the dietitian and like methods, cause needless waste of time. Many clinics do not even waste three to four days for the preliminary desugarization of the patient. The method described below has avoided unnecessary trials and tests to a mini-

mum and the results obtained are the same as with the older methods. In other words, we want to find out how much sugar the patient can metabolize unaided, and we want him to leave the hospital on a diet which will maintain his weight and energy and keep his urine sugar free.

There is one class of diabetics to which this form of treatment is not applicable, the obese, middle-aged, mild diabetic, which is simply a case of chronic over-feeding. Moderate restrictions of the diet is all that is needed in these cases, special attention being paid to foods of high caloric value.

Immediately upon the diagnosis of diabetes mellitus, the patient is sent to the hospital. The optimal diet is estimated. By "optimal diet" is meant the amount of food required to maintain his weight and energy while doing approximately the amount of work to which he is daily exposed. For this reason, a diabetic should not be kept in bed. He should be allowed to walk so that conditions will be similar to his home environment. In suitable cases, a metabolism test should be done to accurately estimate the basal caloric needs. To this is added 30 per cent for a patient leading a sedentary life and 60-80 per cent to one engaged in active physical exertions.

The maintenance or basal needs can also be figured from the following tables. The height and weight is measured. From this his body surface area is obtained by means of the DuBois Surface Area chart (chart I). Then the standard rate is taken from the Aub-DuBois chart (chart II). For this the age and sex is needed. The standard rate times the surface area gives the hourly need and times 24 gives the daily need. To this figure is added 30 per cent for physical work.

Example Man, 24 years 67" x 134 lbs. Surface area is 17 sq meters. Standard basal metabolism 39.5 calories per hour per sq meter. $39.5 \times 17 \times 24 = 1611$ cal in 24 hours. $1611 + 483$ (30% of 1,611) = 2,094 calories to be given in 24 hours.

To obtain the correct partition for the constituents we make use of the following

Overweight subjects $\frac{1}{2\frac{1}{2}}$ gm CH per Kg of body weight
 $\frac{2}{2}$ gm " " " " " "

Normal or underweight $\frac{1}{2\frac{1}{2}}$ gm CH per Kg of body weight
 $\frac{2\frac{1}{2}}$ gm " " " " " "
 $\frac{1}{1}$ gm " " " " " "

$$37 \times \begin{matrix} \text{or} \\ \text{urine N} = 32 \text{ gms} \\ 10\% \text{ F} = 19 \end{matrix} = 140 \text{ gms}$$

140 total glucose intake

$$\begin{array}{r} \text{Total Output} \\ 24 \text{ hours urine} \quad 2000 \text{ cc} \\ \text{glucose} \quad \quad \quad 2\% \\ \hline 40 \text{ gms} \end{array}$$

40 gms output

100 gms of tolerance

A diet based on these figures is a basal diet and there is still need for more calories. These should be added only in the form of glucose and fat. As long as the amount of fatty acids is less than 1.5 times the total glucose, there is no danger from acidosis. Hence, in adding sugar and fats, the ratio of 1 gm of carbohydrate to 1.5 gm fat should be observed. Most recent work indicates that fat may be added in excess of this but this is a conservative ratio. The remaining calories then will be supplied by adding carbohydrate and fat in their ratio. A convenient method of finding the grams of carbohydrate is to divide the needed number of calories by 17, which gives the grams of carbohydrate. The amount of fat will be 1.5 times this.

Example: Normal weight subject 60 Kg as in the above example, CH 60, P 60, F 150. The total calories are $(4 \times 60) + (4 \times 60) + (9 \times 150) = 1590$. His optimal diet consists of 2094 cal. Hence, we must supply $2094 - 1590 = 504$ cal in the form of CH and fat. $504 \div 17 = 29$ gm of CH. $F = 29 \times 1.5 = 43.5$. Thus the total optimal diet is CH 89 P 60 F 193.5. This yields 2094 calories.

With the optimal diet figured, the patient is placed immediately on this food list. No insulin is given. Twenty-four hour samples of urine are examined quantitatively for sugar. This continues for four days with a blood sugar estimation during this period. The output of sugar daily should show a rather close agreement. This output is subtracted from the total intake to estimate the tolerance. The total glucose is represented by the sum of the sugar producing foods. This is 100 per cent of the CH, 58 per cent of the protein and 10 per cent of the fat. These figures represent the proportion of each food stuff, that is transformed into sugar, during its assimilation. In this laboratory, the actual total CH intake is estimated as follows: 100 per cent of the CH, plus 10 per cent of the fat, plus the estimated sugar derived from the protein metabolized. The amount obtained from the protein in many underweight diabetics is not 58 per cent of the protein. In many cases the nitrogen balance is disturbed and their own body protein may be burned or the administered protein stored to replace a deficiency. The actual amount of catabolism of protein into sugar is found, as done by Wilder of the Mayo Clinic, by multiplying the total 24 hours urinary nitrogen by the factor 3.7.

Example: Total intake of glucose, in the above case
 100% CH = 89 gms
 58% P =

This gives, in four days, the actual ability of the body to utilize sugar at that time. If no sugar is present in the urine, the patient continues on this diet and, of course, does not need insulin. At intervals, after the patient leaves the hospital, 5 grams of carbohydrate and 10 grams of fat are added to the diet, if more nourishment is needed.

If there is glycosuria on this optimal diet insulin should be given to supply the body's deficiency in this hormone. The amount of insulin needed is roughly indicated by $\frac{1}{2}$ the grams of eliminated sugar. One unit of insulin (on the average) will cause the body to metabolize 2 grams of CH. If ten units or less are needed it is given in one dose in the morning before breakfast. Ten to twenty units are divided into two equal doses and over twenty into three doses before each meal. In general, a balance with insulin will be obtained in three to four days. This can be proved by a blood sugar test. If after three days the blood sugar is still high or there is glycosuria, the insulin should be increased.

A resume of the plan is

(1) Estimate the optimal diet either by a metabolism test or by his body surface area and the Standard Basal values from the charts adding whatever is necessary for the production of physical energy.

(2) Four days on this diet, measuring output of sugar if any. If there is no glycosuria, insulin is not needed and the patient is discharged to continue on this diet. If sugar is present in the urine, give one-half as many units of insulin as grams of sugar in the twenty-four hours specimen. A level will be reached in three to five days with minor variations in the dosage. During the stay in the hospital the patient has seen the proper diets as prepared by a trained dietitian. He has been taught how to administer to himself the insulin as well as how to test the urine for sugar. The follow-up treatment is obvious—to reduce the amount of insulin used at frequent intervals, keeping the urine sugar free.

It is felt that a briefer hospitalization is possible for the average diabetic. The method here outlined gives all the necessary data in the control of such a case, providing acidosis or other complications are not present. Accurate and

energetic treatment at the inception of the disease results in much less loss of time and is more economical. Diabetes is increasing in incidence and naturally falls to the care of the family doctor. He is the one to have permanent supervision of the patient.

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CHART 1

DuBois' chart for obtaining the surface area of the body

when the height and weight are known. This also is a convenient chart for changing metric to avoirdupois measurements.

CHART II

STANDARD BASAL METABOLISM (Aub-DuBois)

Ages, Years	Males	Female
14 to 16	46.0	43.0
16 to 18	43.0	40.0
18 to 20	41.0	38.0
20 to 30	39.5	37.0
30 to 40	39.5	36.5
40 to 50	38.5	36.0
50 to 60	37.5	35.0
60 to 70	36.5	34.0
70 to 80	35.5	33.0

BOTULISM—CASE REPORT WITH CLINICAL AND LABORATORY INVESTIGATIONS * †

ALVIN G FOORD, M.D., and ANNA E FORSYTH, M.D.

BUFFALO

Numerous references on botulism are available in recent literature, especially the monographs of Dickson¹ and Bengston² and articles by Thom et al³, and Burke⁴, and to these the reader is referred for a complete bibliography of the subject of botulism.

The case herein described is that of a white widow, aged 46, dying from botulism five days after eating spoiled home-canned string beans. These had been canned in a "Sealtight" jar by the "cold pack method," and kept at room temperature for six months. The patient ate one tablespoonful at noon on January 18, 1925, but on account of the pungent, very disagreeable odor and taste took no more. A mouthful of beans was tasted by the patient's daughter who promptly spat them out. She developed no symptoms. About 9 a. m., 20 hours later, the mother complained of general malaise and nausea, followed by vomiting by 3 p. m., which persisted until evening. The following morning, January 20, difficulty in swallowing, articulation, and moving the tongue developed, followed in about two hours by a ptosis of both eyelids, moderate dizziness and a feeling of a choking sensation in the throat, which culminated in an acute attack of dyspnoea with fear of strangulation. The choking sensation led to the calling of a physician who found no organic basis for the same on examination of the mouth and throat.

The symptoms became more severe, especially the choking sensation and dyspnoea. Diplopia from external strabismus of both eyes developed on the third day. By the evening of

the fourth day the patient was comatose and breathing with difficulty. She was admitted to the hospital at 7 p. m. No history was available at that time, most of the above facts being obtained after death from the daughter.

Physical examination on admission showed dilated pupils, inactive to light, bilateral external strabismus and ptosis, muscular reflexes all inactive and the muscles flaccid. Temperature was 99, pulse 90, respiration 20, blood pressure 110-70. The heart, lungs and abdomen were negative.

Marked constipation persisted throughout the course of the disease. The temperature remained below 99 until the day of death, then rising to 101 degrees. The urine showed a trace of albumen and a few hyalin casts. Wasserman test was negative, blood urea nitrogen 22.4 mg and blood sugar 0.135 per cent. Death occurred 22 hours after admission, and five days after eating the spoiled beans. The only clinical diagnosis mentioned during life was that of possible neurosyphilis, based chiefly on the cranial nerve symptoms. However, the diagnosis of botulism was entertained at the autopsy table when the full history was obtained.

The autopsy performed by Dr William F Jacobs showed both grossly and microscopically a marked passive hyperemia of all the thoracic and abdominal viscera with small areas of hemorrhage in the lungs. The brain showed a moderate edema and a profound hyperemia, quite generalized, but most marked at the base, the small vessels standing out prominently after section of the wet brain substance. Microscopically, an occasional ante-mortem thrombus was seen in the small ves-

* Read at the meeting of the New York State Association of Public Health Laboratories at Syracuse, May 13, 1925.

† From the Laboratory of the Buffalo City Hospital.

sels with an occasional small area of hemorrhage around the same, besides a marked distension of all the capillaries with blood. No thrombi were found in the meningeal vessels and no distinct changes were seen in the cells of the brain. Parenchymatous degeneration and albuminuria were present in the kidney tubules. The liver showed some small droplets of fat in the peripheral cells of the lobules and a yellow punctate pigment deposit in the hepatic cells around the bile capillaries, apparently bile pigment. The stomach and intestines showed no evidence of irritant poison, but merely shared in the general congestion of all the viscera.

Injection intraperitoneally of 1-1000 cc salt solution extract of the beans, which were obtained from the garbage (wrapped in paper and frozen stiff for five days), produced death in guinea pigs in less than 24 hours. Two chickens were highly refractory to 6000 times this dose by mouth. Pure cultures from the beans, and from the intestinal content of the patient obtained at autopsy, were grown by planting the extract and feces, heated to 80 degrees for 10 minutes, into one per cent dextrose agar neutral to phenolphthalein, one per cent dextrose broth (pH 7.0), blood agar plates, and into brain emulsion made by mixing equal portions of the macerated sheep brain and distilled water, filtering through gauze and autoclaving. To a few tubes of the latter a small piece of sterile rabbit kidney was added, which seemed to enhance the growth. The cultures were grown in both daylight and dark at room temperature for ten days to two weeks under anaerobic conditions in a Novy Jar, and a large bottle combining the hydrogen with the pyrogallic acid and sodium hydrate method. Both straight rod forms and drumstick spore-bearing types of the organisms were found in the beans as well as in all subcultures. Cultures liquified gelatin, clotted and later digested the casein in litmus milk with acid production, and produced acid and gas in dextrose, maltose and mannite, and slight acid in lactose.

Toxin was slightly stronger in cultures grown in the dark, the average fatal dose for guinea pigs being about 1-1000 cc. The symptoms and pathological findings in all the animals were typical of botulism, with marked hyperemia of all the organs, especially the brain, occasional thrombus in the small vessels

and a distension of the stomach, which characteristically tore easily on handling. The thrombi were found in only three animals. Guinea pigs, of which 33 were used, were relatively a little more sensitive to the toxin than the four rabbits injected. Chickens were highly refractory, 9000 lethal doses for guinea pigs being given by mouth and 150 subcutaneously with no effect whatsoever.

Heating the original toxin (extract from beans) or that produced by culture, in a water bath at 100 degrees for five minutes entirely destroyed the same, large doses causing no effects on animals.

Guinea pigs given 3-10 cc antitoxin B (New York State Laboratory) and doses as high as 100 fatal doses of toxin remained well, while others given similar doses of toxin plus 3-10 cc antitoxin A, or toxin alone, died promptly with typical clinical and pathological findings of botulism. The results were the same with the toxin produced from the culture obtained from the beans and that from the intestinal content of the patient at autopsy.

Summary

A case of botulism, fatal in five days, due to eating home canned string beans, is presented.

Bacillus botulinus, Type B, was recovered in pure culture from the spoiled beans, and from the intestinal content of the patient at autopsy.

Toxin production by the organism was vigorous. Chickens were immune to enormous doses of the same, whereas guinea pigs and rabbits were highly susceptible. Heating the toxin in boiling water for five minutes destroyed it completely.

Pathologic findings were characteristic of botulism in the patient as well as in the animals.

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INTIMATIONS OF PUBLIC HEALTH IN EARLY NEW YORK *

By DONALD B. ARMSTRONG, M.D. Sc.D.,

NEW YORK CITY

MAY I first call your attention to an ordinance passed in New York City (then New Amsterdam) about the middle of the Seventeenth Century, dealing with street safety and hygiene. It reads as follows:

"As the roads and streets of this city are by the constant rooting of the hogs made unfit for driving over in wagons and carts, the Board directs and orders that every owner of hogs in or about the city, shall put a ring through the nose of their hogs to prevent them from rooting, within eight days, under a penalty of two florins for each time that this ordinance is not obeyed, and that it may be properly carried out, we charge and direct hereby, our officer to see to it and provide against transgressors after the publication hereof. This done at the City Hall, August 19, 1658."

While the cause of torn-up streets was rooting hogs and not "sand hogs," yet the sentiment has a familiar modern sound, not entirely foreign to Twentieth Century complaints.

Indeed, a study of early colonial life from the public health point of view encourages two paradoxical and somewhat contradictory impressions. In the first place, the incipient movements for health conservation and for public comfort and safety seem so inadequate and remote when compared with the modern scale as to bear little relation to the intricate and relatively magnificent measures of the current social order. On the other hand, one gathers the impression that there is "nothing new under the sun." There appears to be a striking similarity in problems, devices, and (alas in some instances) results.

The records of early New York during both the Dutch and English occupation, up through the first half of the Nineteenth Century, reflect the sanitary and hygienic problems of which the community and its leaders were conscious. One finds certain measures of personal hygiene and certain initial provisions for the control of medical service, including certain beginnings at the socialization of medicine. There is an early recognition of the need for sanitary regulation, for city planning, and for organized efforts to meet collectively such requirements as proved to be beyond the range of individual capacity. The findings are fragmentary, yet symbolic and indicative of the trend of the times—the pre-natal period of the sanitary awakening to follow.

A few examples of early health provisions may be cited.

Very early recognition was given to the need for some sort of official control over the prac-

tice of medicine. It was characteristic of a primitive condition that for a time a greater degree of official supervision existed than prevails ordinarily in most mature communities. In 1652, there occurred in New Amsterdam, the earliest local order on record regulating the practice of medicine (and incidentally indicating the metamorphosis of medicine out of barbering). To quote the New Netherland Register for February, 1652:

"On the petition of the chirurgions of New Amsterdam that none but they alone be allowed to shave, the Director General understands that shaving doth not appertain exclusively to chirurgy, but is an appendix thereunto, that no man can be prevented operating on himself, nor to do to another this friendly act, providing it be through courtesy, and not for gain, which is hereby forbidden. It was then further ordered that ship barbers shall not be allowed to dress any wounds nor administer any potions on shore without the previous knowledge and special consent of the petitioners."

This is undoubtedly the earliest official effort to regulate the practice of medicine, and incidentally reminds us of our humble origin. The Netherland Register further states:

"The first members of the medical profession in New Netherland were, of course, ship surgeons who practiced on shore while their vessels lay in port. Some of them settled at the Mannhattans, and worked out a subsistence by being sometimes employed by the Government."

Of this period Mrs. John King VanRensselaer wrote:

"A midwife by the name Maryje Jans was sent to the Colony, and also two men by name Sebastien Jansen Crol, and Jan Huyck, sick men's comforters, who were ordered to nurse and doctor the injured, and also conduct prayer meetings, read the Bible, and look after the welfare and morals of the community." Also Sylvant Sornelesli was appointed Assistant Surgeon "to be employed in shaving, bleeding and administering medicine to the soldiers."

Finally, indicating the extent of community control, an ordinance of 1656 may be quoted:

"The barbers, whether on board a ship or on land, shall be bound to give their services cheerfully, and to use all diligence to restore the patients to health, without receiving therefore any compensation except their monthly pay, and, in case any of them receive any money or promise of payment, they shall be obliged to restore what they receive and the promise shall be null and void."

* Presented before the New York Academy of Medicine (Historical Section) February 25, 1926.

The practice of midwifery was also not neglected. States the *New England Register*:

"Midwives in Holland, before being licensed were duly examined by a board of physicians. One of such licensed women was appointed midwife to a town or village. This custom was transferred to New Netherland."

There is also on record an order allowing Hellegond Jons, a midwife, a salary of 100 guilders (\$40) a year for attending the poor. Whether she was considered overpaid or not, the record does not state. The record does indicate, to quote again, that "as early as 1658, a hospital was provided in a clearing, with fires of wood, and a nurse was engaged to look after the sick." The exact location of that institution is apparently uncertain.

One finds scattered throughout the records of the Dutch colony, numerous references to organized dealing with health and sanitation, or with subjects assumed at that time to bear a relation to the health of the community. These deal with the inspection of meat, water supply, street cleaning, drains, and ill smelling cheese. Hogs were apparently a perpetual nuisance. To quote again the records of New Amsterdam:

"Officer Pieter Tonneman wishes to know, whereas some dead hogs lie here and there on the street, where he shall have them conveyed and by whom, to prevent the stench which proceeds therefrom. He was notified to send the city's negroes whom he shall order to collect and bury the same. Tuesday, April 8, 1664."

Thus we note a problem which Mayor Walker and his Street Cleaning Department are fortunately spared.

The problem of rubbish and dead animals existed then as now.

"It has been found that within this City of Amsterdam, many burghers and inhabitants throw their rubbish, filth, ashes, dead animals and suchlike into the public streets to the great inconvenience of the community and dangers arising from it. Therefore the burgomasters ordain and direct that henceforth no one shall be allowed to throw into the streets or into the canal, any rubbish, filth, ashes, oyster shells, dead animals, or anything like it, but they shall bring all such things to the most convenient of the following places, to wit, the Strand, near the City Hall, near the gallows, near Hendrick, the Baker, where tokens to that effect shall be displayed, but not on the public streets, under a penalty of three florins for the first offense, six florins for the second, and arbitrary punishment for the third."

Apparently, this and subsequent ordinances had little effect, for the patrolmen today, at certain hours of the early morning, still walk close to the building line in order to avoid a possible shower from above, and still today the work of nuisance abatement and of the removal of dead

animals constitutes an illegitimate phase of the program and budget of the average town and city health department. The reference to oyster shells is also of interest for it indicates dietary progress from an earlier period in New Amsterdam, concerning which it is stated elsewhere that owing to an extremely hard winter, attacks by the Indians, a poor crop, and lack of shipments from abroad, the inhabitants of New Amsterdam were so hard pressed and sunk so low as to find it necessary to eat oysters!

Privies existed and were a problem then as now. It is still true that probably a third of our urban population in this country is unsewered. While there is no record of a hookworm menace, yet we find the following provision:

"Whereas many, even the greatest part of the burghers and inhabitants of this city, build their privies even with the ground, with an opening toward the street, so that hogs may consume the filth and wallow in it, which not only creates a great stench and further great inconvenience to the passersby, but also makes the streets foul and unfit for use—therefore to obviate, the Burgomasters herewith order and command that all and everybody, whoever they or he may be, shall break down and remove such privies coming out upon the street, within eight days after the publication hereto, rebuilding them in such places that they give the least offense to the community under the penalty of six florins for the first time, double as much for the second, and arbitrary correction for the third."

The first record of a public water supply occurs in 1658 when the Burgomasters resolved to look into the question of having a public well made in Heere Street. It is stated that the first British provision for a public water supply was made at the time of Aaron Burr, and under his auspices, when he secured the passage of a bill permitting him to dig a well in Catherine Street, and establish a water company. It is also stated that this legislation permitted him to do as he saw fit with the excess appropriation or proceeds from the venture, and that he established a bank as an adjunct to the well. It is not inconceivable that here may have originated the term "stock watering."

In these early days, industrial hygiene was not altogether neglected, or at least, hazards of industry as they might affect surrounding neighborhoods. To quote again the records of New Amsterdam:

"William Van der Borden and Daniel Verveelen appearing, represent that a tannery was established between their house and lots, and as they fear their water shall be thereby spoiled and they shall also have to endure great stench from the tanning of skins, they request that such be forbidden, especially the digging of a pit in which the skins are soaked. The Burgomasters

decreed that as others have been allowed to make a tannery between their house and lot, such cannot be forbidden Tuesday, July 8, 1664"

We have referred to the street hazards created by the rooting hogs. It is also evident that New Amsterdam had a traffic problem. Among the laws and ordinances we find

"The Director Generals, in order to prevent accidents do hereby ordain that no wagons, carts or sleighs shall be run, rode, or driven at a gallop within this city of New Amsterdam, that the drivers and conductors of all wagons, carts and sleighs within this city shall not sit or stand on them, but now henceforth, within this city (the broad highway alone excepted) shall walk by the wagons, carts, or sleighs, and shall take and lead the horses on the penalty of two pounds flemish for the first time, etc."

Again, on the question of safety, our press today is not altogether devoid of recommendations made by the Police Department, by judges, and others, concerning the careless use of firearms. Apparently the first "Sullivan Law" to be adopted on this Island was in 1652 which read in part as follows

"Whereas many guns are daily discharged and fired at partridges and other game within the jurisdiction of the city, and in the vicinity of the fort, by which firing people or cattle might perhaps be struck and injured, against which practice complaints have already been made, therefore the Honorable Director General in order to prevent accidents, expressly forbids and interdicts all persons henceforward firing within the jurisdiction of this city"

This is perhaps a little bit removed from the question of health and disease, but I intend to wander just one step further before closing these citations. Is the liquor question a health problem? If it is now, then presumably, it was also a health question in the Seventeenth Century. At any rate, the problem, however it may be classified, was recognized, and met by legislative and educational efforts strangely similar to modern volsteadian procedure, with not dissimilar results so far as one can judge. We must go back to 1638 for the preamble to an ordinance which you may find of interest

"Whereas the Honorable Director William Kieft and Council of New Netherland have observed that much mischief and perversity is daily occasioned by immoderate drinking, therefore the said Honorable Director General wishing to provide against the same, has interdicted and forbidden, does hereby interdict and forbid, all persons from now henceforth selling any wine on pain of forfeiting five and twenty guilders, and the wines which will be found in their houses, except only the store where wine can be procured at a fair price and where it will be issued in moderate quantity"

Evidently an early experiment with the Quebec system!

The ordinance proceeds

Whereas we see and experience that our former edict enacted against unreasonable drinking to excess both at night and on the Sabbath of the Lord, to the scandal and shame of us and our nation, is not observed and obeyed according to our intent and meaning, we hereby renew the same and do ordain and enact that it shall henceforth be put, maintained, and executed in strict observance and force, pursuant to the time and provision therein set forth. Meanwhile, the reason and cause why this one good edict and well meant ordinance is not obeyed according to the tenor and purport thereof, are that this sort of business and the profit easily accruing therefrom, direct and lead many from their original and primitive calling, occupation and business, to resort to tavern keeping so that nearly the fourth of the city of New Amsterdam consists of brandy shops, tobacco and beer houses by the multitude whereof not only more honorable trades and occupations are neglected and disregarded, but even the common people and the city's servants seriously debauched, and what is still worse, the youth seeing and following as from their very childhood, this improper example of their parents, are drawn from the path of virtue and into all sorts of irregularities. Hence also proceed cheating, smuggling, and frauds, and the clandestine sale of beer and brandy to the Indians and natives, as daily experience, God Help Us! shows, from which nothing but new difficulties between us and them ought to be apprehended, and moreover, decent taverns, established and licensed for the use and accommodation of travellers, strangers, and inhabitants which honestly pay their taxes and excise, and hold or lease suitable houses, sitting under heavier expenses, are seriously injured in their licensed and lawful business by these underground grogeries"

There then follow provisions forbidding a new tavern to be set up without permission, and regulating existing ones. Later, after this regulative and suppressive ordinance had been passed, and presumably enforced, after the manner of its kind, we find a reference in 1648 which reads as follows

"We do hereby interdict and forbid all persons on the aforesaid day (the Sabbath), spending his time to the shame and scandal of others, in gross drunkenness and excess on pain, being so found, of being arrested by our fiscal, and senior, and inferior officer, and arbitrarily punished by the Court"

That was in 1648. Then here is another quotation from the lips of a famous Bishop of the Episcopalian Church taken from the *New York Times* of February 8, 1926

"I, have come to the conclusion that the Volstead Act has resulted in worse drinking conditions among people than we had before, that it has increased enormously among them the use of strong distilled liquors, often poisonous and dangerous, that it has corrupted officials, has brought about an increased disrespect for law

Now we are in danger of relying on legislation to enforce sobriety, with the result that evasion of the law is regarded as a clever joke to be applauded rather than a crime to be condemned. Nobody wants the oldtime saloon back again, but many people dislike and hate the bootlegging substitute."

These comments of the New Netherland City Fathers have a peculiarly modern sound. They had their "underground grogeries," their bootleg problem, and the youth were being debauched as usual. History repeats itself, and we are usually blind to our previous experience. Could we perhaps have learned something from the experience of New Amsterdam? At any rate, it is too late now for we are launched on our own legislative experiment, and will have to go through with it. The outcome of this earlier experiment is not clear. Current Prohibition advocates assure us that it will take several generations to establish the full benefits of our recent Constitutional amendment. Do subsequent records throw light on the sequelae of these earlier efforts at control? It is hard to say, but if we consult the later mortality records of New York City, rather interesting findings are disclosed. There is in existence, a semi-centennial table of mortality, I believe the first available mortality records for the city, presenting the causes of death from 1804 to 1853. In this are found, among other things, certain peculiar differences from what we now know as the International List of Causes of Death. For instance, by 1805, there were 11 deaths from "Drinking Cold Water." By 1825, this factor in our mortality had reached the epidemic proportions of 77 deaths. In spite of the mortality, apparently the blue ribbon movement was rampant. What, however, are we to think of the subsequent backsliding and period of decadence shown by 119 deaths in 1831, for which the cause was certified as "intemperance," with 137 deaths from delirium tremens in 1847, and 128 deaths from the same cause in 1853. In 1826, following the cold water epidemic of 1825, when the population of the city was approximately 160,000, there were 6 citizens of New York killed and murdered, 13 died from sudden death by violence, 29 by suicide, and 63 by drowning. You may draw your own conclusions as to what is in store for our grandchildren!

You will be interested perhaps in certain additional facts disclosed by these early mortality tables. There are many curious reflections, not only of the death certification procedure of the

times, but of the prevailing sanitary conditions of the city. A few of the rather odd causes of death may be cited. In 1847, there was one death from rattlesnake bite, in 1846, three deaths from salivation, 1853, one death from piles, and also one death from obesity, in 1842, ten deaths from constipation, in 1853, one death from swinepox, in 1837, one death from "furor of the womb", and for the period 1807-53, 49 deaths from mensesmenstruation.

On the other hand, in 1805 there was recorded only one death from diabetes and there were very few more than this for many years. Other records reflect the terrible conditions that prevailed in New York City at the beginning of the Nineteenth Century, the extreme degrees of insanitation, bad housing, overcrowding, incompetent administration, filth and ignorance. In 1853, there were 13 deaths from scurvy, in 1851, when the city had a population of 538,400, there were 977 deaths from typhus fever, or a rate of 181.5 per 100,000. In 1805, with a population of 78,429, there were 270 deaths from yellow fever, or 344.3 per 100,000. As late as 1822, the yellow fever rate was 119.9 per 100,000. The big year for cholera was 1832, with 3,513 deaths, or 1,558 per hundred thousand, against a population of 225,000. Smallpox continued intermittently to be a serious factor. In 1804, there were 169 deaths, or 226 per 100,000, in 1824, 394 deaths, or 257 per 100,000. As late as 1853, there were 656 deaths, or 112 per 100,000. While in 1924, the smallpox death rate for New York City was zero, the disease of course constitutes a danger not yet removed owing to laxity in vaccination procedure—first introduced in New York by a Dr. Seaman in 1801. While there has been of late little of the disease in New York City itself, it has been prevalent in many surrounding communities, and the figures for the incidence of the disease in the United States as a whole are a disgrace. In 1924, we had the largest number of cases of any country in the world, except British India, but not excepting Russia.

The old records are not especially adequate on the questions of maternity and infancy. Deaths in 1804, incidental to the puerperal state, numbered 16, or a rate of 21.4 per 100,000. Unfortunately, this is not in striking contrast to the rate of 11.3 per 100,000 for 1924. There were no infant mortality rates for the older period, of course, for birth registration either did not exist or was, at any rate, largely neglected. We find, however, that in 1804, there were 33 deaths from "teething," rising to 242 in 1837. The centennial table does show the number of deaths for one year or under, and these can be compared with current figures. In 1804, there were 428 deaths, or 571.9 per 100,000 population. In 1825 the rate was 538. In

1853, the rate was 992, as compared with a rate of 146.6 in 1924

Diphtheria or Croup was, of course, a considerable factor in mortality, showing a rate of 122 per 100,000 in 1806, 96 in 1831, 115 in 1853, as compared with 11.9 per 1924 Typhoid fever, if one credits the diagnoses with any degree of authenticity, showed a rate of 10.4 in 1847, as compared with 3.1 in 1924 Of course, we generally admit now that any community with a rate much over 3 per 100,000 is a sanitary disgrace

SELECTED DEATH RATES PER 100,000 FOR SELECTED YEARS,
1804-1924 CERTAIN CAUSES OF DEATH FORMER NEW YORK CITY

	1804	1825	1831	1836	1847	1853	1859	1869	1874	1882	1892	1906	1909	1924
ALL CAUSES OF DEATH	1045	992	926	865	765	667	628	469	388	327	289	239	220	146.6
SCARLET FEVER														
CHOLERA														
PULMONARY TUBERCULOSIS														
SCARLET FEVER														
SMALL POX														
CROUP (DIPHTHERIA)														
TYPHOID FEVER														
TYPHUS														
YELLOW FEVER														
DISEASES OF HEART & ARTERIES														
CANCER														
CONSUMPTION														
DROWNING														
DEATHS UNDER 1 YEAR														
ESTIMATED AND YEAR AGO	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804	1804

Consumption played a conspicuous part as a death factor In 1804, there were 499 deaths, or a rate of 667 per 100,000 By 1832, the rate had dropped to 628 and by 1853 to 469 You are aware, perhaps, that the rate for 1925 for New York City was 88 per 100,000, which includes all forms of tuberculosis, whereas the figures cited for the previous years are those for so-called consumption only, and do not include "white swelling," "scrofula," etc

On the other hand, certain leading causes of the present day are either not prominent or unrecognized in the older records This is to be accounted for, no doubt, not only by changes in actual disease incidence, but also by differences in terminology, changes in medical knowledge, modifications in certification procedure, as well as alterations in the age composition and life duration of the population in general For instance, for cancer for the period 1804-36 inclusive, there were 355 deaths of an average of 11 a year This rose to 79 deaths in 1853, or a rate of 13.5 per 100,000, to be compared with a rate of 109 per 100,000 in 1924 As to diseases of the heart and arteries, we find in 1804 four deaths from this group of causes From 1804-14 inclusive, there were 18 deaths For the period 1815-33 inclusive, there were no deaths except those accredited to aneurism By 1853, however, there were 433 deaths with a rate of 74.1 per 100,000 The rate for 1924 was 312.5 per 100,000

The general death rates were, of course, high In 1804, the rate was 28.4 per 1,000 living By 1825, it was 31.2 In 1832, the cholera year, it jumped to 45.9 By 1853, it was 38.9, whereas last year, 1925, our general death rate was 11.49

It is evident that in the early half of the Nineteenth Century life in New York City was hazardous, short, and not particularly merry There are no life tables for New York City for that period The only data at all available are to be found in a life table constructed for certain communities in Massachusetts and New Hampshire by Dr Edward Wigglesworth for the year 1789 From this table we learn that the expectancy of life at birth at that time was 28 years At the present time, for the Registration Area of the United States, our expectancy at birth is 58 years, and we now believe that the way is clear, with the application of known hygienic knowledge, for the addition of ten or twenty years more to this average life expectancy Certainly, the contrast reflects marked changes and genuine progress, however numerous may be the factors that have brought it about

During this middle period in the history of New York City, conditions were certainly serious, and were, apparently, generally accepted There was in fact little change until the Civil War Then, striking improvements were initiated, as is often the case through the efforts of one man, the late Stephen Smith His unusual attempts at the correction of unhygienic and insanitary conditions were crowned with a high degree of success, paving the way not only for the sanitary regeneration of the city as a whole, but also for the wide stimulation of a similar movement on a national scale

Dr Smith, in his book entitled "The City That Was," published in 1911, presents a graphic description of health conditions in New York City about 1860 In his chapter on "A Blind Metropolis," he states

"New York gradually became the natural home of every variety of contagious disease, and the favorite resort of foreign pestilences Smallpox, scarlet fever, measles, diphtheria, were domestic pestilences with which the people were so familiar that they regarded them as necessary features of childhood Malarial fevers, caused by the mosquitoes bred in the marshes, which were perfect culture-beds, were regularly announced in the autumnal months as having appeared with their 'usual severity' The 'White Plague,' or consumption, was the common inheritance of the poor and rich alike

"With the immigrant, came typhus and typhoid fevers which resistlessly swept through the tenement houses, decimating the poverty-stricken tenants At intervals, the great oriental plague, Asiatic cholera, swooped down upon the city with fatal energy, and gathered its enormous harvest of dead Even 'Yellow Fever,' the great

pestilence of the tropics, made occasional incursions and found a most congenial field for its operation."

Later Dr. Smith makes a housing reference which is not altogether atypical of reports of a much more recent date.

"Very few tenements have waterclosets in the houses, they have privies in the yards, which, as a rule, are insufficient for the accommodation of the numbers crowded into the houses, many are not connected with the sewers, are seldom cleaned, being allowed to overflow in some cases, rendering the neighborhood offensive with insalubrious emanations."

In a summary of disease conditions by wards of the city during the year 1864, he comments briefly upon the Eighth Ward as follows:

"The prevailing diseases of the past season have been fevers of the typhus, typhoid, remittent and intermittent types, cholera infantum, scarlatina, dysentery, and diarrhea, all confined to densely populated tenements. The typhus and typhoid fevers have been of a malignant type in two houses, twelve out of eighteen cases proving fatal."

Indicating that the city already had its apologists and "boosters at any price," Dr. Smith further states:

"And yet it is reiterated year after year by the City Inspector, that New York City, at this day, can lay claim to the privilege of being numbered with the most healthy in the world."

Keenly aware of the seriousness of the situation, Dr. Smith himself first conducted a personal survey. He reported his findings to the Police Department with the result that no action was taken. He then took the matter to the Citizens Association, organized by Peter Cooper, for the special purpose of fighting the Tweed Ring. Under the auspices of a Committee on Public Health of this Association, the first thorough sanitary survey of New York City and perhaps of any city on this continent was undertaken. You will recognize the names of many of the prominent medical men on that committee, including Dr. Valentine Mott, Dr. Joseph M. Smith, Dr. James R. Wood, Prof. John W. Draper, Dr. Willard Parker and Dr. Isaac E. Taylor.

Among other things, this survey disclosed that the city provided practically no adequate machinery for the control of disease. The sanitary work was done by a group of inspectors known as health wardens, who, according to Dr. Smith, were "generally saloon keepers." Dr. Smith relates that one of these wardens was asked to define the word "hygiene" and replied that it was "the vapor which rises from stagnant water."

This Commission drafted the first Metropolitan Health Bill in the Fall of 1864 which was introduced into the Legislature in 1865, and was

defeated. It was subsequently reintroduced in 1866, and passed in March of that year. There followed the organization of the Metropolitan Health Board which, with its far reaching and drastic provisions, and sweeping powers, laid the basis for the control of disease, and the promotion of health knowledge, in New York City and for Health Departments throughout the United States.

It is impossible in this review to touch upon the marvelous evolution of the city's water supply from the first Dutch well to the Croton and Ashokan systems, on the beginning of milk sanitation, and the extension of pasteurization, with the concomitant fall in infant mortality and tuberculosis, on the development of hospitals and clinics and organized medical service for infants, school children, and industrial workers, upon the expansion of the list of reportable diseases, or on the other great sanitary reforms and the beginnings of health education efforts with the expansion in personal hygienic instruction.

In New York City we have seen the whole cycle of modern public health development to date. Beginning with the Dark Ages of the early Eighteenth Century, illuminated by the work of Stephen Smith, leading to the shotgun methods of the sanitary policemen concerned with general environmental hazards, we have come down to the more accurate and specific attacks upon disease based on the disclosures of bacteriology. We have witnessed the development of sanitary science and specific disease control, beginning with general epidemiology and disease suppression through sanitation, and growing into a specific science of preventive immunology. We have seen it all leading up to the personal hygiene and public health education of today, first disease suppressive in character as in its earlier attacks upon tuberculosis and infant mortality, and now more largely health creative via the health examination movement and the art of health promotive habits of living.

We have witnessed a transition from the environmental to the personal, from sanitary policing to individual persuasion, from suppressive legislation to individual responsibility. In medicine, veering away from the early communism, we have noted a successive period of expansion of the private practice of medicine with a gradual return to a greater degree of group medical control for large sections of the population, such as the infants, the school children, industrial workers, and others. More recently, in medicine, we have seen on the one hand a high degree of specialization, and now on another, through the hygienic educational responsibilities of the profession, through the practice of periodic examinations, we may observe the opening up of a much larger and greater field for the gen-

eral practitioner—the private practice of preventive medicine

It is a long way from Peter Stuyvesant to Louis I Harris. Yet there is something to be learned from the study of our early experience. While history does not recur in identical cycles, and is certainly evolutionary, it is nevertheless an ascending spiral, tracing perhaps a more or less similar trajectory on the lines of which our problems, thinly disguised, have the habit of recurrence.

In public health we have the satisfaction of having more than kept pace with the growth of the city. In most respects our conditions are infinitely superior to either colonial or subsequent periods. In addition to the development in health education and the application of medical knowledge to larger groups of population, the city at the present day may as a whole, be considered well sanitated. Our methods of sewage and waste disposal are still crude, and our housing situation is perhaps an exception to this, though here both ancients and moderns are probably inclined to exaggerate the importance of unsightly

and uncomfortable conditions. We must remember that home methods are more important in disease control and health promotion than home equipment, though, of course, without certain fundamentals of equipment, satisfactory methods cannot be practiced. Ignorant, or careless human pigs in a palace will frequently have a higher sickness and death rate than clean, intelligent humans in a hovel.

Compare with other municipal interests from the point of view of keeping pace with the city's development, the workers in the public health field may be congratulated. While we are behind in our traffic problem, while we have not kept pace in the matter of food distribution, and in general in the use of mechanical invention for constructive social purposes, yet in public health we have, on the whole, gained on the situation. The evidence presented in the foregoing paper must indicate that in spite of our tremendous growth in numbers and in complexity of organization, life in New York today is safer, probably happier, and certainly longer than it was in the Manhattan of long ago.

THE TREATMENT OF LARYNGEAL TUBERCULOSIS*

By ROY S MOORE, M D
SYRACUSE, N Y

IT is the purpose of this paper to gather from the literature the opinions of men doing the most work in laryngeal-tuberculosis and to add to them my own observations made on 49 cases, which were watched and treated by me during three months of 1924 at the Hajek Clinic at the University of Vienna.

In considering the therapeutics of laryngeal-tuberculosis, the determination of the value of any one form of treatment is a most difficult one. The personal equation, the patient's temperament, the virulency of the infection, his family affairs, his financial status, his environment, all bear heavily on the outcome.

The scientific treatment may be said to have started with the advent of the laryngoscope. In the early days, most of the best men were strong in their affirmations that local treatment was of no value, and that the outcome depended entirely upon the progress of the pulmonary lesion. In 1876 M Schmidt succeeded in destroying this principle by reporting a series of cases which he thought were favorably influenced by the use of inhalations and antiseptics applied locally in the larynx, especially the inhalation of dilute carbolic acid, Peruvian bark, thymol, iodoform, creosote, sulphur, menthol, and antipyrin.

We all know that flat ulcerations can be

healed without any local treatment if the general condition of the patient remains good, by simply following out the dietetic, climatic and hygienic rules. We should not forget that we occasionally find a fibrous tubercular involvement which shows a great inclination to stay stable and become better spontaneously.

Today the therapy may be said to be divided into. First, palliative, and second, curative. Under the palliative measures may be mentioned either orthoform alone or mixed with zinc ointment, morphine in the latter stages, and the injection of the superior laryngeal nerve for the dyspnea. This procedure makes the way easier for many a sufferer. The injection should be made on one side only, waiting to see that we get no paralysis as a complication, when the other side may be injected.

The curative measures are confined to. First, surgical removal of the involved area, second, actual cautery, and third, sunlight, all, of course, combined with rest. Only such cases of tubercular inflammation of the larynx should be removed surgically as may be limited to a small area and where the involved parts are more or less pedunculated, particularly those that are located in the back wall of the larynx, the epiglottis, or in the Ventricles of Morgagni, and have not as yet involved the arytenoid cartilages. As a matter of fact, sur-

* Read at the Annual Meeting of The Medical Society of the State of New York at Syracuse May 13, 1925.

gery today is largely limited to the removal of a badly involved epiglottis, which makes the swallowing very painful and protruding granulemas of the posterior commissure which interfere with both respiration and the voice.

Many authorities feel that any type of tubercular lesion can be greatly benefited by the use of the actual cautery, the ulcers by scarring over the surface, the deeper infiltrations and tumors by repeated puncture.

In the midst of all these views, heliotherapy of the larynx, advocated by Poncet, Bernhardt and Rolier, was introduced. Lorgo in Switzerland in 1904 first applied the rays directly to the laryngeal mucosa, and since that time various methods have been advanced and used for the introduction of the sun's rays or their equivalent into the larynx. Rolier, Bernhardt and Poncet remained more or less unnoticed, although they demonstrated the fact that the sun was a healing agent. Finsen carried the work further and found in the restricted arc lamp an excellent equivalent of the sun which has become the method of treatment in Lupus.

At the various sanatoria in this country and abroad, many methods are used for introducing light into the larynx. In the sanatoria of Colorado and Arizona, where the sunlight may be depended upon day after day, Mr. Verba's laryngeal mirrors have been brought into use quite extensively. Mr. Verba was a patient himself with laryngeal-tuberculosis and being of ingenious mind, devised mirrors for the introduction of sunlight into the larynx by the patient, two mirrors being used, one fastened to some standard, as the back of a chair, the patient sitting with the sun at his back and holding a laryngeal mirror in his mouth, the light is reflected first from the mirror on the standard onto the laryngeal mirror, and secondly from the laryngeal mirror into the larynx. These mirrors are made of an alloy which reflects the greatest per cent of the ultraviolet rays. A second mirror is fastened on the standard above the reflecting mirror, in which the patient may observe the condition of his own larynx.

In our own Adirondack region, the water-cooled mercury lamp is used for the treatment of these cases. In order to get at the extent of the use of heliotherapy, I addressed a letter to various sanatoria and men interested in the treatment of laryngeal-tuberculosis, asking the following questions:

1 Do you in your sanatorium use light therapy as a routine in your treatment of any type of tuberculosis of the larynx?

2 How many patients have you exposed?

3 What types of laryngeal-tuberculosis do you consider are benefited by this treatment?

4 If you use the light treatment, what type of light do you use?

5 What methods do you employ for the direct or indirect application of the rays?

6 What have been your results?

I find that most of the smaller sanatoria such as our county sanatoria do not carry on any routine treatment for laryngeal-tuberculosis other than palliative measures. At Raybrook the superintendent informs me that their experience with light therapy is limited to relatively few cases. At the J. N. Adams Hospital at Perrysburg they have exposed about 30 cases to natural sunlight by Rolier's method of exposure and the superintendent informs me the results were good. At the Trudo Sanatorium, Saranac, they have treated from 30 to 50 cases with the ultraviolet ray, using the Burdick and Alpine lamps and general exposure only. The superintendent feels the results were good when combined with general treatment.

The work has evidently not been carried far enough to enable one to give the per cents of cure, improvement or no benefit in the various types of cases. Most authorities feel that the rays in the spectrum between the violet and ultraviolet are the ones of greatest therapeutic value. The other end of the spectrum, the red one, is the one which produces the heat and the hyperemia. These rays have a power of penetration of several centimeters. The rays from the violet end of the spectrum do not penetrate more than a fraction of a millimeter. There is, however, produced a fluorescence action and beta rays are formed which go deeper and produce a chemical action on the tissues. This biological action is proportional to the chemical power and inversely proportional to the ability of penetration.

We now know that the sunlight has an electrical destroying effect on the tubercular granulation tissue and that this action is mainly produced by the blue and ultraviolet end of the spectrum. Together with this action on the tubercular granulation tissue the light acts as a powerful stimulus for the formation of scar tissue as well as having a favorable influence on breathing, pulse, blood, etc.

In 1920 Dr. Wesley at the Hajek Clinic of the University of Vienna was entrusted by Professor Hajek because of his work in radiation with the responsibility of developing a light therapy clinic. His opinion is that the electric arc light is the best spectral imitation of sunlight, but that it is not an optimal imitation and that this imitation could be achieved only by completing the blue end of the spectrum by the addition of impregnated carbons. In Wesley's lamp the heat rays or red end of the spectra are absorbed by a water jacket introduced into the machine.

At the Hajek Clinic 50 per cent of the patients have the laryngeal mucosa exposed di-

rectly to carbon light. For this exposure the Seifert apparatus is used. In the early days the suspension apparatus was the only one available. Today the Seifert apparatus brought out by Dr Seifert of the University of Berlin, a former assistant of Professor Kilians, seems the best adapted to the work, because of the small area of pressure in the throat, viz. that of the laryngeal spatula under the epiglottis. The Haslinger Scope, because of the fulcrum on the posterior pharyngeal wall and its double area of pressure is not tolerated by the patient for a sufficient length of time to be of great service in this work.

It is the opinion of the men in this clinic that those patients who are in good condition generally and running no temperature but with marked involvement in the larynx do much better when exposed directly to the light as opposed to those treated with the reflected ray. It has been a problem to find material from which to make the indirect mirrors which would reflect any large per cent. of the beneficial rays. The ordinary indirect laryngeal mirror will throw into the larynx about 9 per cent of the rays from the ultraviolet end of the spectrum, while 95 per cent. of the light and heat rays are reflected. The mirrors used in this country are some type of alloy, varying with the clinic, while in Europe some form of steel seems most popular, the best of these reflecting only about 50 per cent of the beneficial rays.

We have then to decide whether the patient is in good enough condition to attempt to give him the best, that is, the direct exposure or whether the strain would be too much for his general condition. If we use the direct method, the throat is desensitized the same as for direct laryngoscopy or upper tracheoscopy, when the patient will lie down and the light will be thrown in for a period of from one to fifteen minutes depending upon the individual's local reaction in the throat, and the length of time that he has been under treatment. At the beginning the light is used every second day and the treatments vary from a few weeks to a year or more in length. After the termination of the actual treatment, the patient should be controlled by examination at least once each month.

The following observations were made on the 49 cases which were treated by me. First, the healthy mucous membranes stand the sun in larger doses than the skin accepts. After excessive radiation there follows a latent stage of a few hours when a light gray discoloration of the epithelial membranes occurs. Blisters, ulcers and oedemas are never produced when the work is done carefully. Oedemas as part of the pathology are never influenced by ordinary doses. Flat ulcerations heal to an in-

visible little elevation which persists a long time, and which later on completely flattens out. Granulations become smaller and flatter, but one can always distinguish the place where the light acts from the place where it does not act. They become more and more epithelialized and after months can be noticed by the uneven surface. Infiltrations gradually become smaller until a pale green swelling remains which shrinks up to several wrinkles. Dysphasia usually subsides with the disappearance of the superficial sore. Sometimes a large tubercular lesion is cured in a few weeks, while a small one will heal only after months, which can be explained only by the general condition of the patient, the extent of the lung lesions and the different degrees of regenerative power. Ulcerations of the mouth, tongue and pharynx heal much faster than those of the larynx. The cure takes longer the deeper the ulcers lie.

In the series of cases which it was my privilege to watch, 33 per cent were cured, 35 per cent improved, 13 per cent improved temporarily, 8 per cent made a change for the worse, and treatment was interrupted, and 12 per cent discontinued treatment because of dissatisfaction.

My plea, then, is for a more systematic study of the larynx in all cases of tuberculosis followed by an examination at least once each month. Remember that rest is the first essential. Use the light therapy in any case which is afebrile, those patients who are in fairly good condition being subjected to the direct application of the ray while their less fortunate brothers attempt the easier form of treatment, namely, the indirect ray. If the light does not yield satisfactory results employ the actual cautery, scarring over the superficial ulcerated areas which are not on the chords, and which do not involve too much surface. With the cautery puncture the infiltrations when this seems advisable. If the epiglottis is badly involved associated with dysphagia amputate it, if there are pedunculated masses posteriorly bite them off and cauterize the bases.

Sir Sinclair Thompson said at Atlantic City in 1919 that among all fairly early cases of pulmonary tuberculosis admitted to the sanatoria in England, the expectation is that 60 per cent will be alive in from three to seven years, but in similar sanatoria patients admitted with the larynx involved only 30 per cent will be alive at the end of that period. We can appreciably lessen the latter figure if we will vigorously attack tubercular lesions in the larynx, particularly in those patients with inactive lung processes, by eliminating the larynx as a possible focus for reinfection of the lungs or new



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THE ANNUAL MEETING IN NEW YORK CITY—1926

The State Society is fortunate in having as its officers men who are working conscientiously and tirelessly for the advance of the medical profession. Excellent proof of this is to be found in the elaborate programs which have been made by the Committee on Arrangements at the old Waldorf-Astoria for the comfort of the Association and the up-to-date presentation of advances which have been made in medical technique and instrumentation.

A word about our meeting place. On March 15, 1893, the late Mr. George Boldt opened the Waldorf. It was an event which required foresight and courage. To the casual observer the Waldorf-Astoria has always been a success. At

the start, it seemed anything but a success to Mr. Boldt. During the first summer, there was a Sunday when with 40 guests he had 970 servants on the payroll—plenty of reason to worry, but with the determination to give his guests every luxury and comfort, he made a reputation for the Waldorf-Astoria which is second to none.

Could the old walls talk, they would tell you of the unspeaking acquaintance William Waldorf Astor had with John Jacob—how the latter built a wall to close off the first Waldorf, then peace was made and the bigger and better combined hotel came. They might record how the Bradley-Martin ball, held here in 1897, was quoted for years to come, Li Hung Chang came, in 1902,

Prince Henry of Prussia made the hotel his official headquarters, and so the old Waldorf has endeared itself to those New Yorkers who by heritage expect the best

This is merely a tribute to the honest endeavor of a management which has had ideals and lives up to them, and so we feel in good company when in like spirit the Medical Society of the State gathers here

The scientific programs require no explanation. They have been carefully worked out and will offer every section the opportunity of thoroughly expressing itself. We would stress, however, the special demonstration on syphilis, which occurs Thursday morning, April 1. Of this we should take advantage, as rarely can one subject be so thoroughly assembled except at an annual convention.

Tuesday, March 30, is the night of the banquet. Merely to state that it is to occur at the Waldorf should assure a large attendance. The incomparable Oscar is just as interested now as in the past—we will be well cared for.

Owing to lack of accommodations at the Waldorf, the meetings of the Women's Medical Association of New York will be held at the McAlpin nearby. They are planning to welcome every woman physician from New York, New Jersey and Connecticut. They have stressed two very valuable suggestions for "out of towners"—first, a trip to the new Medical Center of Columbia University on Washington Heights. This is well worth while, although the buildings are still under construction, their substantial and impressive height carry a medical argument which words can poorly convey. Again, the Academy of Medicine is soon to open its doors on upper Fifth Avenue with a new building and added responsibilities. Those who are non-resident Fel-

lows should know where the new building is located.

The New York State Association of Public Health Laboratories will also convene on the evening of the thirtieth at the Waldorf.

The Commercial exhibits this year bid fair to excel anything we have had for years. The last issue of the Journal stressed the obligation the physician owed his various collaborators for better health.

Let us remember that everything commercial has not been commercialized—that the ethics of truthfulness and honesty of manufacture is just as much a part of manufacture as it is of medicine. The aim of the A M A and State Societies has been a progressive refinement in the claims of exhibitors. The survival of the fittest is an old rule, and hence we naturally expect to find old friends at the various booths.

Look things over carefully. Instruments cannot do the thinking or pass judgment, but if we do our own thinking, good tools will go a long way toward obtaining success.

New York will throw open its clinical doors, and by consulting the bulletin boards at the Academy of Medicine, subjects of every nature and kind will be found available for visiting members. Nineteen hundred and twenty-six should be a year of advance. Progress in medicine, however, is in proportion to the inspiration and endeavor of the individual.

Probably the greatest advantage in State meetings is the educational value on its membership and the broadcasting of mutual experience. To read a man's books and then to meet the author personally after the reading, adds a touch which is never gained in the abstract.

Let us have a speaking acquaintance with the Medical Profession and learn to know one another's names and faces.

THE MINERAL SPRINGS OF SARATOGA

The development of the mineral springs of Saratoga is included in the program for which the State of New York is issuing bonds. The State has already acquired several hundred acres of land around the springs, and has made available their facilities to some extent. The further plan is to use some of the one hundred million dollar bond issue that has been authorized and to develop the springs and the land around them into a park, and to provide the facilities for hydro-therapeutic treatments which shall be within the reach of the financial means of all classes of citizens. The plans are described in more detail in a communication on page 278.

The hydro-therapeutic values of the mineral waters of Saratoga fall into the three classes of internal, external, and environmental.

The original conception was that the principal value of the water was its internal effect after it had been swallowed like a drug. But extravagant claims for the water, its use self prescribed by laymen and quarrels over the ownership of the underground waters all combined to bring discredit on the waters, both in Saratoga and throughout the land.

When the art of physio-therapy, and of its subdivision, hydro-therapy, was developed and standardized, the value of the Saratoga water was rediscovered, and its external use was developed on an increasing scale.

Lastly, there came the realization of the therapeutic value of environment—extensive facilities, courteous attendants, happy convalescents, and beautiful surroundings. These attractions combined with the abundant use of the water

externally, and are conducive of effective therapeutics

Private ownership of the springs of Saratoga led to discord and failure, but they are a valuable asset in the State system of parks, and should not only be self-supporting, but also produce financial dividends to the State

Physicians are interested in the springs from a medical point of view. The medical societies of the city of Saratoga Springs and of the County of Saratoga are using their influence that the springs shall be developed along lines that are strictly scientific and ethical. They also in-

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THE PHYSICIAN'S BUSINESS PARTNER

The doctor is dependent on a number of other persons who are highly skilled in various trades and professions. He could not practice medicine without the aid of instrument makers, from the highly skilled mathematician who designs lenses for microscopes, to makers of scalpels and braces. He is dependent on the chemists, botanists, and zoologists who prepare his medicines and serums, and standardizes their doses with exactness. He must have the services of workers in iron and brass and wood to prepare his office furniture and equipment. The printer and publisher prepare the books and periodicals which endow his mental equipment.

All these craftsmen and technicians are friends of the doctor. They fabricate their products to suit his needs and desires, and they invent new instruments to enable him to operate with precision, certainty, and ease. They design new office equipment for his comfort and convenience. They delve into the secrets of nature and produce new products for his use.

The methods of the craftsmen are those of the business world. They make the great bulk of their products with the expectation that doctors will appreciate their workmanship, and will come to them and buy what they need. The stock which they carry at their own expense is a great

incentive that stimulates the doctor to have the most modern equipment that he can afford,—and he cannot afford to have anything less than the best. Caesar recognized the civilizing value of the services of the merchants when he said that the Belgians were the least civilized of all Gauls because the merchants resorted to them the least often. The doctor, too, feels the urge to better practice of medicine when he receives the visits of the vendors of instruments and books and office equipment and drugs.

A meeting of a great medical society, such as that of New York State, is not complete without its exhibit of commercial products which the doctor uses in his practice. The exhibitors at the annual meeting of the Medical Society of the State of New York are those whose products and methods are approved by the American Medical Association, and whose ethics are as upright as those of the medical profession. They are on the same floor with the doctors' assembly rooms. The doctors may see the products and test them, and may have their virtues explained by expert demonstrators.

The exhibits are part of the program that was designed by the Scientific Committee. They are coordinate with the scientific sessions, and deserve the same attention from the doctors.

LOOKING BACKWARD—THIS JOURNAL A QUARTER CENTURY AGO

The campaign for the eradication of diphtheria is founded on certain knowledge of definite tests which are in marked contrast with the uncertainties of the days a quarter a century ago when the data was being collected slowly and laboriously and the interpretation of the findings had not passed beyond the experimental stage.

This JOURNAL for March, 1901, contains a report of some cases of diphtheria which were classed as unusual. Case 1, a boy four years old, had a sore throat and rhinitis, and the doctor, who was thoroughly informed regarding the value of diagnostic tests, took a culture twenty-four hours later and was surprised to receive a report of the presence of diphtheria bacilli. He immediately gave 2,000 units of antitoxin "although no exudate was visible." In twelve hours the child discharged two large pieces of membrane from its nose. Thirty-six hours later a membrane appeared on the posterior wall of the pharynx and 1,000 units of antitoxin were given and Loeffler's solution was applied to the exudate. The boy was nearly well within two days, and

the diphtheria bacilli had disappeared from the throat ten days later.

The second case was that of a nurse, aged 24, who had a sore throat and a cough. She was cultured and on the receipt of a positive report, 2,000 units of antitoxin were given and Loeffler's solution painted on the throat and repeated until by the end of eighty hours she had received 6,500 units. She continued to cough and to have fever, and pneumococci were found in the sputum. The bronchitis ran its course, the diphtheria bacilli disappeared from the throat in nine days and the case left the hospital in twenty-eight days. A complication was a rash during the second week of the disease. The author comments:

"The cases illustrate the value of large doses of antitoxin given early, together with the local application of Loeffler's solution. Had it not been for the examination of the sputum (in the second case) we might have been justified in considering the bronchitis and the pneumonia as diphtheritic in origin, and might have continued giving even larger doses of antitoxin."

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with attacks of giant urticaria. These attacks were followed by general epileptic convulsions which were clonic throughout, thus being primarily caused by cortical irritation. Protein sensitization tests proved the child susceptible to milk, which was discontinued with the result that there were no further attacks of urticaria or convulsions. In the second case, a middle-aged man, who had suffered for ten years from attacks of circumscribed edema affecting the soft palate, lips, cheeks, and occasionally the arms and trunk, had four attacks of hemiplegia associated with the edema. Two of these attacks affected the left side and two the right. In both attacks involving the left side of the brain there was complete motor aphasia, in no instance was there any sign of disease thirty-six hours after the attack. In a third patient, a man aged 28 years, who had suffered from severe attacks of angioneurotic edema for five years, there were numerous attacks of acute transient edema of the optic nerve and retina resulting in total loss of vision, from which the patient recovered in from a few days to several weeks. There were also other transient phenomena affecting the central nervous system—complete aphonia, deafness in both ears, difficulty in swallowing, and hemiplegia—which were seemingly synchronous with those seen with the ophthalmoscope. The patient showed sensitization reactions to milk and veal. Kennedy suggests that acute perivascular edema may play a part in some of the malignant types of insular sclerosis. If external poisons can cause cerebral episodes such as these, they may also cause the transient episodes of Charcot's disease of which the morbid process has been so baffling.

Dementia Precox in Identical Twins—

While a growing interest has been shown in the biological significance of twins, very little attention has been paid to their diseases, especially to their mental diseases. Siemens, in 1924, noted seventeen recorded instances of dementia precox among them. Of the seventeen pairs, six were without doubt identical, five were less certainly so, and six were probably fraternal. Franz, in 1919, reported the case of a pair of twins suffering from dementia precox, he dealt with the subject from the standpoint of nervous disease strictly and did not enter into a discussion of the biological problems involved. G. H. Parker (*Journal of Nervous and Mental Diseases*, February, 1926, LIII, 2) describes another instance of this condition in twins, which is similar in many respects to that reported by Franz. Both of these twins showed symptoms of dementia precox, following an attack of diphtheria, at the age of sixteen years, though in one of the twins the symptoms did not manifest themselves until several months after the attack. The resemblance of the symptoms in twins was very striking. The simultaneous occurrence in identical twins of children's diseases, such as chicken-pox and the like, is more probably an environ-

mental affair than a germinal one, but with the occurrence of dementia precox in such twins the evidence is strongly in favor of a germinal source, since this disease seems to have been attributed to infection. It appears to arise from a germinal taint, a maladjustment of the egg cell or the sperm cell or both. In Parker's case the father of the twins had suffered a sunstroke, and thereafter was hypochondriacal and depressed and occasionally talked of suicide. That the mental disease should also occur in pairs of fraternal twins, as noted by Siemens, is no argument against this view, for, if it is germinal in nature, it may well be expected in any of the members of a given family. What would be of great interest in this connection would be the discovery of a case of dementia precox in only one of identical twins. The conclusion that dementia precox is germinal in origin is quite in line with what has been maintained within recent years about this disease, and with the statement of so conservative a writer as Myerson who declares that "dementia precox breeds true." From the practical standpoint the occurrence of this disease in one member of a pair of twins should lead the examining physician to an immediate examination of the other member.

Hepatic Function in Health and Disease—

The new facts concerning liver function that have been recently brought out are reviewed by Charles H. Mayo (*Surgery, Gynecology and Obstetrics*, January, 1926, VIII, 1), who describes the method developed by Mann for the total removal of the liver. This accomplishment has removed many of the difficulties that have stood in the way of the investigation of liver function. Mann and his co-workers, Magath and Bollman, found that when the liver was totally removed, the blood sugar level was greatly lowered, until, at a definite point, an animal which had shown little apparent disturbance from the loss of the liver, suddenly developed muscular weakness and in a short time became moribund. However, the injection of glucose, 0.25 to 0.5 gram to each kilogram of body weight, restored it immediately to normal. If the blood sugar is maintained at approximately normal level by the administration of glucose, the animal may be sustained in a comparatively active condition for many hours. A portion of bilirubin is produced in the liver but it is also made outside the liver from hemoglobin in the reticulo-endothelial areas of the body. The amino acids are taken up from the intestines by the blood, and those which cannot be employed to restore tissue are changed by the liver into glucose and urea. When the liver is totally removed, urea is not formed, and uric acid is not destroyed, proving that the liver is necessary for these important phases of nitrogen metabolism. Ligation of the common duct distends the gall-bladder and increases its function of filtration of fluids. If the gall-bladder is removed or the cystic duct ligated, bile pigment appears in the blood in



MEDICAL PROGRESS



The Influenza Pandemics of 1890 and 1918—Pirquet has made an exhaustive study of the age-mortality curves of these two pandemics, based upon the English mortality statistics and while inclining to the belief that the disease in each case was the cause, admits that those who hold the contrary opinion are not without strong arguments to support their view. He first eliminates the annual seasonal influenza which has prevailed since the 1890 episode, because from first to last it shows the age-mortality curve of acute bronchitis and might therefore be regarded as belonging essentially under this head. The pandemic of 1890-1 showed a minimum mortality during the period ending at 10 years, then a slow rise to the age of 25, after which came a rapid rise up to the 70's and after. This is assumed to be the natural mortality, in a population of non-immunes, from pandemic influenza. If now we compare with this curve the curve of the pandemic of 1918-21 we shall find such a startling difference that most of us would declare against the identity of the two. There was agreement as to the minimum mortality of the first decade of life, but after this there was sudden increase with maximum at 30 years. The death rate of the third decade was shocking. After 30 there was a steady decline up to 70. Admitting that this is a valid argument for separate disease processes, Pirquet calls attention to the factor of immunization of the public by the earlier pandemic. The fearful mortality of the 20-30 age period could be explained by the fact that the victims were non-immunes, while the middle aged and elderly who got off easily were immunes. This does not explain everything—for example, why did the young men escape in 1890 when they were not immunes either? The author is not entirely clear on this point but states in one place that in 1890 influenzal broncho pneumonia and lobar pneumonia were probably not included in the influenza figures, which conclusion would seem to vitiate his reasoning to some extent.—*Wiener medizinische Wochenschrift*, January 2, 1926

Wheal Formation in Infants and Children—As it has been observed that the wheal formation of urticaria is modified in a measurable degree in cases of cardiac edema, J. D. Pilcher thought it might be of interest to study it in other conditions, in the hope of obtaining information as to the condition of the skin vessels, especially in relation to their permeability, in such abnormal conditions. (*American Journal of Diseases of Children*, January, 1926, xxi, 1) As is well known wheals are produced by a large number of unrelated substances, notably his-

amine, members of the morphine group, and proteins. In this study codeine, whose action is identical with that of morphine, was chosen as the wheal-causing agent. Shortly after the intradermal injection of 0.15 cc. of a 1:1,000 codeine solution, a flush appears, which is soon followed by a wheal at the site of injection, the flush reaches its maximum within five minutes, the wheal a little later, in from ten to fifteen minutes the flush begins to fade, the wheal loses its sharp outline and gradually both disappear, the wheal outlasting the flush. Pilcher concludes that wheal formation in the skin is a manifestation of increased permeability and dilatation of the minute vessels. An efficient circulation is necessary for wheal formation. This phenomenon was lessened in all cases of edema studied, regardless of the cause, whether nephritis, cardiac decompensation, leucemia, malnutrition from starch-feeding, injury, and also in the local skin edema of serum-urticarial wheals and of those following the injection of saline infusions. This result is due to the edema itself and not to decreased vessel permeability. Wheal formation is also lessened in certain ill-defined skin infiltrations, namely, in cretinism and myxedema and in sclerema and scleredema. In nephritis without edema, the wheal formation, and hence the vessel permeability, is normal, indicating that the cause of the edema in nephritis is not increased vascular permeability. In valvular and congenital heart disease without edema, even with considerable decompensation, the wheal formation is normal, indicating an efficient circulation in the skin. In myocardial degeneration and in certain cases of severe prostration, wheal formation is diminished because of a lessened circulation in the skin. A normal wheal reaction indicates an efficient circulation at the site of the wheal. The presence of a strongly positive tuberculin reaction does not modify wheal formation. Low serum calcium and phosphorus, down to half the normal quantity, in infants with rickets or spasmophilia, have no influence on the permeability of the minute vessels of the skin, as measured by the codeine wheal reaction.

Cerebral Symptoms Induced by Angioneurotic Edema—Foster Kennedy (*Archives of Neurology and Psychiatry*, January, 1926, xv, 1), presents evidence showing that the statement, often reiterated in the literature, that brain vessels are incapable of variation in size is incorrect. He reports three cases in which cerebral symptoms were apparently induced by angioneurotic edema affecting the brain. The first case occurred in a child of two years, who suffered

ject in the recumbent position. There is, of course, a brief loss of consciousness. Collapse is a complicated condition and for some time consciousness is retained although there is a late loss of it. Swoon is by no means peculiar to the weak and nervous for the author has seen it in robust butchers used to the sight of blood. We can describe it only as an increased vasolability. In collapse the entire organism suffers a partial suspension of function although the blood-vessels exhibit the greatest departures. There are various forms of collapse as hemorrhagic, cardiac, vasomotor (seen in acute infectious diseases), and toxic (in pancreatic necrosis). In regard to the vegetative nervous system we have learned much about it in the past 15 years, not only its peripheral portion but its special nerve centers which lie mostly in the mesencephalon, hypothalamus, walls of the third ventricle, crura cerebri, etc. These centers are believed to stand in a definite relation with water retention, nutrition and body weight. The author believes that the seat of swoon is in the cerebral peduncles, where, as stated above, the vegetative nerve center is believed to be located. Swoon, he believes, is always basal, never cortical in origin. The author attempts to make a valid distinction between shock and collapse. The latter is a far more common and manifold and complicated condition than shock and when we say shock we usually mean collapse. We should not speak of "shock" from hemorrhage or "shock" from septic or toxic influences, or anaphylactic "shock" but in all such cases should be substituted the term collapse. The two conditions have many similarities and many symptoms in common such as the weak, rapid, and thready pulse, the subnormal temperature and the cold and clammy skin, with the slowing of the cerebral functions and retention of consciousness. Moreover shock may pass into collapse. But there are differences, for shock comes on suddenly or we would not call it shock. It is therefore chiefly traumatic in origin and for the same reason it is reflex in mechanism. The initial and key alteration is sudden lowering of blood pressure. After a careful analysis of shock theories the author decides that shock is preëminently neurogenic, and that the vegetative nerve system is involved in the reflex. It could be called traumatic neurogenic collapse. Through the part played by the vasomotor nerve system the vessels suddenly dilate and lower the blood pressure. The author goes back to the old teaching of H. Fischer in 1870 that there are two forms of shock, the ordinary or torpid form and the erythemic which is characterized by delirium, jactitation, etc. One form may succeed the other, and the erythemic form is closely allied to psychic shock which may or may not follow physical injury. Moreover there is a local form of shock limited to the abdominal cavity such as develops from abdominal contusion.

Statistics of Diphtheria Treatment in Copenhagen—Heckscher, associated with Professor Bie, reports nearly 5,000 (4,819) cases of diphtheria treated with serum at the Blegdam Hospital, Copenhagen, during the period 1921-1925. The total mortality is given as 12 per cent. Somewhat over 10 per cent of this material, or around 500 cases, represented the severe form of the disease and required very large doses of serum—up to 200,000 units per case. The special mortality of the severe cases is not given, although the total number of deaths (96) most probably occurred here. The author, however, points out that in 28 cases the cause of death had nothing to do with diphtheria or its treatment for the patients died of concurrent diseases or accidental complications, including ordinary pneumonia, acute phthisis, congenital syphilis, etc. Deducting this number we have 68 deaths from the disease itself, inclusive of one from serum sickness. If we assume that the 68 deaths occurred among the 500 patients with severe diphtheria the special mortality would be slightly under 14 per cent which certainly speaks well for serum treatment. The chief mechanism of death was circulatory collapse and no less than 62 cases terminated in this manner, 11 within a very short period after the onset of the disease. The practice of giving such large injections has naturally its disadvantages, for the majority developed some serum sickness, while in addition to one death set down to this cause it may have been a factor in two others. The interested reader is referred to a forthcoming number of the *Acta Medica Scandinavica* in which the material is to be reported in detail—*Deutsche medizinische Wochenschrift*, January 8, 1926.

Studies of Certain Hitherto Undescribed Antirachitic Substances—In former communications Andor de Bosanyi (*Bulletin of the Johns Hopkins Hospital*, January, 1926, xxxviii, 1) showed that watery extracts of defatted bone-marrow caused healing when they were administered to rickety animals. Since the bone-marrow from which these substances were made was defatted, and the extracts themselves were subjected to dialysis, the organic matter must have consisted in a large part of protein. Among these proteins hemoglobin, histons, nucleoproteins, fibrogen, and globulins are the most notable; there are also some xanthin bases, cholesterin, inositol, lactic and uric acids, and certain pressor substances. Experiments were carried out to determine to which of these substances the specific antirachitic effects were due. Rats were made rachitic by standard rickets-producing diets and then treated with these substances, given separately. It was found that healing might be induced by a histon—the globin of hemoglobin, a diamido acid, cystin, an aromatic compound, adrenalin, and an alkaloid, pilocarpine.

amounts sufficient to give a positive van den Bergh test in from three to six hours and jaundice in twenty-four hours. Excess of fatty bodies in the blood and toxins of infection may as suddenly start and complete the formation of a stone, or the addition of another layer to a stone, as a hen can cover an egg with carbonate of lime, that is, in one day. The conception of disease of the gall-bladder from overwork is being recognized as the basis of the development of gallstones. Excess of sugar (and the amount consumed by one individual has increased a pound a year for 100 years, being now about 112 pounds) causes hyperfunction of the liver and of the cystic, common and hepatic ducts. Stimulation of the sympathetic nervous system may be the result of changes in hepatic function, dependent, in turn, on injudicious eating and the strain of modern ways of living. Bile in the blood from obstruction of the common duct greatly delays coagulation time and increases the risk of operation during jaundice. At the Mayo Clinic such patients receive 5 c c of a 10 per cent solution of calcium chloride once daily for three days preceding operation. In persons chronically sick, who have taken little food for weeks, sugars are given by mouth and glucose by bowel, if required, before or after serious operation. By such conservative methods the old death rate of 10 to 15 per cent attending operations in the presence of jaundice has been lowered to 3.5 per cent. In certain cases in which the liver is not functioning adequately, the administration of bile frees the gall-bladder under tension during fasting. The flow of bile is increased by ox-gall and nitrogenous food, rich carbohydrate food checks it. In chronic deficiency of the liver, with cirrhosis and splenic enlargement, removal of the spleen reduces by 20 per cent the work of the liver, thus relieving and conserving the organ.

Ascites Complicating Cirrhosis of the Liver Treated by Novasurol—J. Gordon Anderson (*Boston Medical and Surgical Journal*, December 31, 1925, cxciii, 27) reports a case of alcoholic cirrhosis occurring in a man, aged 61, in which paracentesis performed on two occasions afforded only temporary relief. Novasurol treatment was then instituted. A preliminary subcutaneous injection of 0.6 c c showed that there was no idiosyncrasy to the drug. Nine injections, at intervals of four to six days were given during a month—a total of 12 c c of the drug being administered. Marked diuresis followed the injections. During the treatment the patient was kept on a low fluid intake with 90 grains of ammonium chloride daily. The abdominal circumference was reduced 15.6 cm., and the patient's weight sixteen pounds. The dyspnea disappeared, as did the physical signs of fluid. Of the various medicinal means which have been used to relieve ascites in cases of cirrhosis of the liver, intravenous injections of novasurol are not

only the most effective, but do not impair to patient's general strength. It is also less irritating to the kidney than other diuretics. If novasurol alone fails to produce a satisfactory diuresis, the additional use of ammonium chloride often brings about the desired result. This treatment is advocated for patients whose general condition is poor, who suffer from advanced cardiac disease, and in whom the functional activity of the liver cells is greatly reduced. It is not intended to replace or postpone operation in cases in which the indications for this more radical form of treatment are favorable.

Non-Surgical Aids in the Treatment of Surgical Patients—Albert J. Ochsner (*American Journal of Electrotherapeutics*, December, 1925, xliii, 12) comments on the ease with which a person working in one field of medicine gradually acquires the conviction that patients who are really sick can be cured only if subjected to his especial type of treatment. He states that he has seen very remarkable results from the systematic application of sunlight or its artificial equivalent in the treatment of tuberculous conditions, with or without the use of surgery, as indicated in the case in question. In cases of septic infection of the extremities the use of large hot moist dressings with a saturated solution of boric acid and alcohol under an ordinary cone reflector containing an electric light will change a very serious acute condition, which frequently requires one or more extensive operations, into a relatively safe and simple condition requiring at most a slight incision. In conditions due to sprains and contusions Ochsner constantly makes use of the Preisnitz pack. He finds that a very large number of surgical patients can be benefited to a remarkable extent by the use of massage and gymnastics scientifically applied. Too little attention is given by surgeons to this form of physical therapy. There seems to be no doubt concerning the value of mineral baths. The two most valuable physical aids to the surgeon are x-rays and radium. For the past six years, the author has placed all cases of carcinoma of the uterus coming under his care in the incipient stage of the disease on treatment with radium and x-rays. In the early cases he removes the uterus with the cautery. Of those treated with radium and the x-rays, many are alive and well today, who would undoubtedly have died long ago, had dependence been placed on surgery alone for their treatment.

Swoon, Shock and Collapse in Relation to the Vegetative Nervous System—Coenen discusses this subject in the *Muenchener medizinische Wochenschrift* of January 4 and 8, 1926. Little is said of swoon, save that the author is no believer in the existence of fatal swoon, but holds that cases of this kind will be found on autopsy to be due to some severe organic lesion. Swoon is corrected simply by placing the sub-

ject in the recumbent position. There is, of course, a brief loss of consciousness. Collapse is a complicated condition and for some time consciousness is retained although there is a late loss of it. Swoon is by no means peculiar to the weak and nervous for the author has seen it in robust butchers used to the sight of blood. We can describe it only as an increased vasolability. In collapse the entire organism suffers a partial suspension of function although the blood-vessels exhibit the greatest departures. There are various forms of collapse as hemorrhagic, cardiac, vasomotor (seen in acute infectious diseases), and toxic (in pancreatic necrosis). In regard to the vegetative nervous system we have learned much about it in the past 15 years, not only its peripheral portion but its special nerve centers which lie mostly in the mesencephalon, hypothalamus, walls of the third ventricle, crura cerebri, etc. These centers are believed to stand in a definite relation with water retention, nutrition and body weight. The author believes that the seat of swoon is in the cerebral peduncles, where, as stated above, the vegetative nerve center is believed to be located. Swoon, he believes, is always basal, never cortical in origin. The author attempts to make a valid distinction between shock and collapse. The latter is a far more common and manifold and complicated condition than shock and when we say shock we usually mean collapse. We should not speak of "shock" from hemorrhage or "shock" from septic or toxic influences, or anaphylactic "shock" but in all such cases should be substituted the term collapse. The two conditions have many similarities and many symptoms in common such as the weak, rapid, and thready pulse, the subnormal temperature and the cold and clammy skin, with the slowing of the cerebral functions and retention of consciousness. Moreover shock may pass into collapse. But there are differences, for shock comes on suddenly or we would not call it shock. It is therefore chiefly traumatic in origin and for the same reason it is reflex in mechanism. The initial and key alteration is sudden lowering of blood pressure. After a careful analysis of shock theories the author decides that shock is preëminently neurogenic, and that the vegetative nerve system is involved in the reflex. It could be called traumatic neurogenic collapse. Through the part played by the vasomotor nerve system the vessels suddenly dilate and lower the blood pressure. The author goes back to the old teaching of H. Fischer in 1870 that there are two forms of shock: the ordinary or torpid form and the erethetic which is characterized by delirium, jactitation, etc. One form may succeed the other, and the erethetic form is closely allied to psychic shock which may or may not follow physical injury. Moreover there is a local form of shock limited to the abdominal cavity, such as develops from abdominal contusion.

Statistics of Diphtheria Treatment in Copenhagen—Heckscher, associated with Professor Bie, reports nearly 5,000 (4,819) cases of diphtheria treated with serum at the Blegdam Hospital, Copenhagen, during the period 1921-1925. The total mortality is given as 12 per cent. Somewhat over 10 per cent of this material, or around 500 cases, represented the severe form of the disease and required very large doses of serum—up to 200,000 units per case. The special mortality of the severe cases is not given, although the total number of deaths (96) most probably occurred here. The author, however, points out that in 28 cases the cause of death had nothing to do with diphtheria or its treatment for the patients died of concurrent diseases or accidental complications, including ordinary pneumonia, acute phthisis, congenital syphilis, etc. Deducting this number we have 68 deaths from the disease itself, inclusive of one from serum sickness. If we assume that the 68 deaths occurred among the 500 patients with severe diphtheria the special mortality would be slightly under 14 per cent which certainly speaks well for serum treatment. The chief mechanism of death was circulatory collapse and no less than 62 cases terminated in this manner, 11 within a very short period after the onset of the disease. The practice of giving such large injections has naturally its disadvantages, for the majority developed some serum sickness, while in addition to one death set down to this cause it may have been a factor in two others. The interested reader is referred to a forthcoming number of the *Acta Medica Scandinavica* in which the material is to be reported in detail—*Deutsche medizinische Wochenschrift*, January 8, 1926.

Studies of Certain Hitherto Undescribed Antirachitic Substances—In former communications Andor de Bosanyi (*Bulletin of the Johns Hopkins Hospital*, January, 1926, xxxviii, 1) showed that watery extracts of defatted bone-marrow caused healing when they were administered to rickety animals. Since the bone-marrow from which these substances were made was defatted, and the extracts themselves were subjected to dialysis, the organic matter must have consisted in a large part of protein. Among these proteins hemoglobin, histons, nucleoproteins, fibrogen, and globulins are the most notable; there are also some xanthin bases, cholesterol, inositol, lactic and uric acids, and certain pressor substances. Experiments were carried out to determine to which of these substances the specific antirachitic effects were due. Rats were made rachitic by standard rickets-producing diets and then treated with these substances, given separately. It was found that healing might be induced by a histon—the globin of hemoglobin, a diaminic acid, cystin, an aromatic compound, adrenalin, and an alkaloid, pilocarpine.

amounts sufficient to give a positive van den Bergh test in from three to six hours and jaundice in twenty-four hours. Excess of fatty bodies in the blood and toxins of infection may as suddenly start and complete the formation of a stone, or the addition of another layer to a stone, as a hen can cover an egg with carbonate of lime, that is, in one day. The conception of disease of the gall-bladder from overwork is being recognized as the basis of the development of gallstones. Excess of sugar (and the amount consumed by one individual has increased a pound a year for 100 years, being now about 112 pounds) causes hyperfunction of the liver and of the cystic, common and hepatic ducts. Stimulation of the sympathetic nervous system may be the result of changes in hepatic function, dependent, in turn, on injudicious eating and the strain of modern ways of living. Bile in the blood from obstruction of the common duct greatly delays coagulation time and increases the risk of operation during jaundice. At the Mayo Clinic such patients receive 5 c.c. of a 10 per cent solution of calcium chloride once daily for three days preceding operation. In persons chronically sick, who have taken little food for weeks, sugars are given by mouth and glucose by bowel, if required, before or after serious operation. By such conservative methods the old death rate of 10 to 15 per cent attending operations in the presence of jaundice has been lowered to 3.5 per cent. In certain cases in which the liver is not functioning adequately, the administration of bile frees the gall-bladder under tension during fasting. The flow of bile is increased by ox-gall and nitrogenous food, rich carbohydrate food checks it. In chronic deficiency of the liver, with cirrhosis and splenic enlargement, removal of the spleen reduces by 20 per cent the work of the liver, thus relieving and conserving the organ.

Ascites Complicating Cirrhosis of the Liver Treated by Novasurol—J. Gordon Anderson (*Boston Medical and Surgical Journal*, December 31, 1925, cxcii, 27) reports a case of alcoholic cirrhosis occurring in a man, aged 61, in which paracentesis performed on two occasions afforded only temporary relief. Novasurol treatment was then instituted. A preliminary subcutaneous injection of 0.6 c.c. showed that there was no idiosyncrasy to the drug. Nine injections, at intervals of four to six days were given during a month—a total of 12 c.c. of the drug being administered. Marked diuresis followed the injections. During the treatment the patient was kept on a low fluid intake with 90 grains of ammonium chloride daily. The abdominal circumference was reduced 15.6 cm., and the patient's weight sixteen pounds. The dyspnea disappeared, as did the physical signs of fluid. Of the various medicinal means which have been used to relieve ascites in cases of cirrhosis of the liver, intravenous injections of novasurol are not

only the most effective, but do not impair to patient's general strength. It is also less irritating to the kidney than other diuretics. If novasurol alone fails to produce a satisfactory diuresis, the additional use of ammonium chloride often brings about the desired result. This treatment is advocated for patients whose general condition is poor, who suffer from advanced cardiac disease, and in whom the functional activity of the liver cells is greatly reduced. It is not intended to replace or postpone operation in cases in which the indications for this more radical form of treatment are favorable.

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Charities Aid Association, the writer, as counsel for the State Medical Society, and others

It was interesting to note that the principal attack came from the organized chiropractors Mr Newton B VanDerzee, counsel for the State Chiropractic Association, and "Dr" Linden Lee, past president of the State Chiropractic Association, spoke at length against the bill. Their opposition was based upon the ground that it would make the practice of chiropractic more difficult. This argument is perhaps the best guarantee of the value of the bill and should strongly tend to commend it, not only to the licensed physicians of this State, but all those who are working for the public health. The fact that those who for their own gain practice upon public credulity under the guise of chiropractic or other quackery oppose this bill is an argument in its favor which speaks for itself.

Perhaps the essential and most important provision of the bill is that providing for the creation of a grievance committee. This committee is to be composed of ten licensed physicians appointed by the Board of Regents, four of whom are appointed out of twelve nominees to be submitted by the Medical Society of the State of New York, two out of six nominees to be submitted by the New York State Homeopathic Society, one out of three nominees to be submitted by the New York State Osteopathic Society, and the bill provides that "the regents upon their own nomination shall appoint three members of conspicuous professional standing." The committee is given "jurisdiction to hear all charges against duly licensed physicians" of this State for violations of the provisions of Section 174a of the bill, except subdivision 1 thereof, which provides for the automatic revocation of the license of a physician who has been convicted of a felony as defined by Section 161 of the article. The grievance committee, therefore, has jurisdiction to hear and determine all charges against a physician who has been guilty of "fraud or deceit in the practice of medicine or his admission to the practice of medicine", who has been convicted in a court of competent jurisdiction either within or without this State, of a crime or misdemeanor", who "is an habitual drunkard or addicted to the use of morphine cocaine or other drugs having similar effect, or has become insane who has been 'guilty of untrue fraudulent, misleading or deceptive advertising or advertising that he can cure or treat disease by a secret method, procedure, treatment or medicine, or that he can treat operate and prescribe for any human condition by a method, means or procedure which he refuses to divulge upon demand to the committee on grievances," and one who undertakes or engages 'in any manner or by any ways or means whatsoever to procure or to perform any criminal abortion or to violate Section eleven hundred and forty-two

of the penal law," making contraceptive advice unlawful.

Discussion has been had concerning the provision empowering the grievance committee to revoke a license for the conviction of a 'misdemeanor' (Sec 174a, sub 2b). For instance, in the *New York Medical Week* of March 6, it is said

'Spitting in the subway, though in undeniably poor taste, should hardly be made even a remotely conceivable pretext for ousting a man from his profession. While it is unlikely that minor misdemeanors would ever be used to deprive a physician of his license, the law should not leave the perpetration of an injustice to anyone's discretion.'

The answer to this suggestion is plain. There are certain misdemeanors which are of a sufficiently serious character, or, as the law says, *mala in se* which might in the judgment of the grievance committee be an adequate basis for the revocation of a license or other discipline of a physician. But it should be recalled that the grievance committee is to be composed of the peers of the accused, it is to consist of duly licensed physicians of high professional standing and unquestioned character. To suggest that this committee so composed would unwarrantably revoke a license or discipline a physician for spitting in the subway or other trivial offense could only be made if the doctors composing this committee were unworthy of trust and confidence. It must be assumed that the physicians who sit upon this committee will be men of ordinary common sense, integrity and judgment, and will not arbitrarily or foolishly exercise the powers committed to them to the undue detriment of any physician. This assumption rests upon the confidence which the physicians of this State must have in their professional brethren who, under the terms of the bill, will compose the grievance committee.

The bill provides clear and effective machinery for the operation of this grievance committee. It provides that the accused may be heard either in person or by counsel, that he can submit evidence and subpoena witnesses in his own behalf. It also provides that the committee "shall not be bound by the laws of evidence in the conduct of the proceedings but the determination shall be founded upon sufficient legal evidence to sustain the same." This is an extremely salutary provision. It requires the committee to have sufficient legal evidence upon which to base its decision, but the presentation of proof other than legal evidence is permitted. In this way the accused doctor could present to the committee all those matters which would throw light upon his innocence and tend to explain the charges against him, which would not be admissible in a court of law. But when it comes to the making of an adverse decision the committee is bound



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

THE PROPOSED MEDICAL PRACTICE ACT OF 1926

No measure affecting the practice of medicine has ever been more thoroughly considered or more fully represents the opinion of the profession than the proposed Medical Practice Act now pending before the legislature.

At the last annual meeting of the House of Delegates, a resolution was adopted providing for the appointment of a Committee of Seven to draft, present and, if possible, to secure the passage of a new law governing the practice of medicine in the State of New York. In conformity with this resolution, your distinguished President, Dr Nathan B VanEtten, appointed the following Committee: Dr John E Jennings, Dr George M Fisher, Dr Thomas C Chalmers, Dr George A Leitner, Dr James E Sadler, Dr George B Stanwix and Dr Frederick H Flaherty. These gentlemen are not only eminent in their profession and thoroughly conversant with its problems, but by reason of their public-spirited service in their various communities are intimately in touch with the particular point of view of the localities from which they come.

The committee met once every two weeks in New York City throughout the summer of last year and made the most painstaking and comprehensive study of the present law and of the need for its amendment, change, improvement and strengthening. They met not only with a frank and generous spirit of conciliation, but with the firm determination, irrespective of personal differences, to hear and consider all the questions involved, with an open mind and a readiness, if need be, to sink personal differences in an effort to evolve the best practicable measure that could be drawn and passed. After they had concluded their deliberations they then conferred with the Attorney-General's office and with the representatives of the State Departments of Health and Education, as a result of which some modifications were made in their first draft of the bill.

A conference was held on February 4, 1926 in New York City, at which the members of this committee and the legislative committee, members of the Board of Regents and a representative of the State Department of Education were present. Once more the measure was fully and thoroughly discussed. Finally, in Albany, on February 10, 1926, a meeting was held of the chairmen of the legislative committees of the various county societies. The meeting was held in the midst of the worst blizzard of the

winter, nevertheless, some forty counties were represented. Again, the measure was thoroughly discussed and considered. At this meeting a vote was taken, and all of the counties present, with the exception of one, voted to approve and support the bill. It has been a source of wonder and admiration on the part of the writer to see how much of their valuable time and effort the doctors entrusted with the duty of drafting this proposed law have unselfishly given to this work designed for the benefit of the entire profession—not only for the benefit of the profession, but for the public health and general welfare of the people of this State.

The draftsmen of the proposed act lay no claims to omniscience, nor do they assert that their work is perfect. No human effort is perfect. No man or group of men are infallible. Perhaps the most perfect document ever written is the United States Constitution, and even that has been amended many times and did not, when it was originally drawn, by any means satisfy all the wishes and desires of the disinterested statesmen who sought to weld the warring colonies into "a more perfect union." What is claimed, however, is that the bill represents the conscientious, painstaking and thorough deliberation of disinterested and public-spirited medical representatives of the various sections of this State, that it is the best practicable measure which could be agreed upon, and that it is a vast improvement over the present law and should be of benefit not only to the medical profession, but to the laity as well.

The bill was introduced in the Assembly on February 16, 1926, by Assemblyman Loomis, and in the Senate on February 18, 1926, by Senator Webb. On March 3, 1926, a public hearing was had before a joint committee of the Senate and the Assembly in the Capitol at Albany. This meeting was attended not only by a large delegation of physicians, but also by representatives of various charitable organizations and others who are vitally interested in problems of public health. Among those who spoke in behalf of the bill were Dr Wendell Phillips, the President-elect of the American Medical Association, Dr Nathan B VanEtten, President of the State Medical Society, Dr Henry L K Shaw, chairman of your legislative committee, Dr Louis I Harris, Commissioner of Health of the City of New York, Homer Folks, secretary of State Committee on Tuberculosis and Public Health of the State

of registration fees Every practitioner embarking upon the practice must pay a fee of \$2 00 and must thereafter pay annually the same sum These registration fees assist to provide the sinews for enforcing the act. The act provides that each year the physician must register, but this provision is made so reasonable that it is felt no burden will be imposed The secretary of the board of medical examiners must mail, on or before October 1 of each year, to each registered physician a blank form of application for registration The physician then has three months in which to make out this registration and send his check for \$2 00 The burden thus entailed from the financial point of view, of course, is negligible, and from the standpoint of annoyance or inconvenience it is reckoned that it will not consume more than three minutes of the doctor's time once each year As compared with the provisions of the law requiring registration for voting, annual registration of automobiles and the innumerable other provisions which in our complicated system are now required of all citizens, this requirement for annual registration is negligible. Its value should be apparent to everyone Its purpose is not only to provide the sinews with which to enforce the public health law, but to provide and keep up to date an authorized list of licensed physicians The bill expressly provides that upon the first of March each year a list of the registered physicians shall be mailed to every registered physician of the State, together with a request that he furnish to the secretary of the board of medical examiners or to the secretary of any State medical society "the name and address of any person known to be practicing medicine whose name does not appear in this registry" In this way every doctor in the State will be enabled to assist the authorities in weeding out the unlicensed charlatans who are preying upon the public The benefits thus derived from annual registration immeasurably outweigh the slight attendant inconvenience which it causes This has now been recognized throughout the State by nearly all physicians

No law could be drawn that would entirely satisfy everyone This law is more universally satisfactory, it is believed, than any similar measure that has ever been proposed Those who still entertain any feeling against annual registration we feel sure will do as Alexander Hamilton, one of the great patriots of the Revolution, so gloriously did when he supported the United States Constitution, although it contained innumerable provisions of which he did not approve His aim was the establishment of the American union and he was willing to submerge personal differences for the attainment of that great end The aim of every licensed physician of this State is the improvement of his profession and the safeguarding of the public health The

proposed Medical Practice Act is designed and it is believed will accomplish great results in furtherance of that aim

The bill expressly provides that the failure to register or pay the annual fee shall result in civil penalties only, and that the license of the doctor who has neglected to register "shall not be affected thereby," and further, that "such penalties may for good cause and in the discretion of the regents be remitted or compromised"

There is not space here for the discussion of many of the other important provisions of the bill Brief reference, however, should be made to subdivision 6 of Section 174 providing that "in any action for damages for personal injuries or death against a physician not licensed hereunder for any act or acts constituting the practice of medicine as herein defined, when such act or acts were a competent producing proximate or contributing cause of such injuries or death, the fact that such person practiced medicine as herein defined without being duly licensed shall be deemed prima facie evidence of negligence" This provision will be of great benefit to the unfortunate dupes of the unlicensed charlatan into whose hands they may come It will surmount the difficulty which was recently discovered in the case of *Brown v Shyne*, decided by the Court of Appeals on February 24 of this year In that case, the trial judge charged the jury that the fact that the chiropractor who by his treatment had caused paralysis was not a licensed physician "is some evidence more or less cogent of negligence which you may consider for what it is worth, along with all the other evidence in the case" The verdict of the jury awarding damages inflicted by that chiropractor was reversed because of this charge. The provision of the bill just quoted provides a statutory rule of evidence which in the future would enable a judge to make the charge which was the basis of the reversal in the Brown case This will be an additional curb upon the chiropractors and other quacks

The proposed act has attracted wide and favorable attention, not only on the part of physicians, but from the intelligent laity as well No more effective conclusion for this article could be found than the editorial of the New York Times of March 5, 1926, which is headed "Registration Entirely Reasonable," and is as follows

"Discouraging, indeed, is it, but by no means surprising, that the representatives of medical science have had to go to Albany to plead for the passage of a law for the registration of all who practice medicine in this State Nothing could be more reasonable, and nothing could be less likely to be criticized adversely by any man or woman with the training and knowledge requisite if such practice is not to endanger the public health and life The real doctors, how-

to base its decision upon the same kind of legal evidence as that which must be made the basis of a finding by a court. The act provides that the committee must determine charges "upon their merits." "If by unanimous vote the practitioner is found guilty of such charges or any of them, said committee shall transmit to the Regents the record, findings and determination wherein and whereby such practitioner has been found guilty, and their recommendation, and the Regents after due hearing shall in their discretion execute an order accepting or modifying such determination of said committee." If the practitioner is found not guilty, said committee shall order a dismissal of the charges and the exoneration of the accused." Furthermore, the committee has power to suspend, reprimand or otherwise discipline the accused doctor in accordance with the provisions of the act. If the Board of Regents adopts the adverse finding of the committee, the accused still has additional redress. He may then "have an order of certiorari for the purpose of reviewing such determination returnable before the appellate division of the third judicial department." This is in the nature of an appeal from the finding both of the grievance committee and of the Board of Regents. Thus, the rights of the doctor are amply safeguarded and protected.

The committee has power further in "any controversy between two or more physicians, or between a physician or physicians and another person," where the parties to the controversy "agree to submit to arbitration" to act as arbitrator in said controversy, and the decision of said committee upon such arbitration shall be final, and where the same orders the payment of a sum of money, the same may be docketed as a judgment of a court of record and enforced as such judgment, provided the terms of the arbitration include such provision."

Thus, there is set up machinery similar in all essential principles to the grievance committees of the various bar associations throughout the State by which the legal profession is regulated and controlled. These grievance committees, as is now well known by the public, act fairly and impartially upon charges preferred against lawyers. Their work is of benefit not only to the lawyers, but to the public, it insures that the aggrieved client may have his grievance promptly and fairly considered and decided, it also insures to the accused lawyer a prompt and fair determination not attended by the unpleasant and damaging features of malicious publicity. No doubt as a result of these lawyers' grievance committees, there are at the present time few malpractice actions instituted against lawyers. It is hoped and believed that the doctors' grievance committee will lessen or greatly tend to lessen the number of malpractice suits now instituted. The lawyers' grievance committees not only are

of benefit to the individual aggrieved client and the lawyer, but their work has greatly strengthened public confidence in the legal profession. The doctors' grievance committee should do the same thing for the profession of medicine.

It has oft times been said that the doctors are not willing to clean their own house and are not sufficiently vigilant to discipline their erring brethren or remove them from the practice of a profession for which they have shown themselves unfit. The proposed grievance committee is certainly an answer to those who make these accusations. It is the best evidence that the doctors are ready, willing and able to set their own house in order. It is an assurance to the laity that the medical profession is unwilling to tolerate the continuance in their midst of those who have shown themselves lacking in those professional standards which are the basis of confidence in the profession.

This machinery providing for a grievance committee has been thoroughly considered from every point of view, it is the result of the matured deliberations of the doctors and of the various public officials who have considered it. The writer has heard no good argument urged against it and the arguments in favor of it have not been and it is believed cannot be satisfactorily answered.

One of the salutary provisions of the proposed act is that by which prosecutions for its violation, except in counties having a population of more than 500,000, are to be conducted by the Attorney General and may be prosecuted before a court of special sessions without the necessity of an indictment or a trial before a petty jury. The advantages of this are apparent. In small communities it often becomes difficult or embarrassing for a local district attorney to prosecute one with whom he may personally be acquainted. The same considerations sometimes operate in the deliberations of grand and petty juries.

Furthermore, the bill provides that the regents may "appoint not less than five or more than seven inspectors under the direction of the secretary of the board of medical examiners to investigate promptly and thoroughly such violations and to procure where possible legal evidence of the same for prosecution of the offenders." Not only may these inspectors be used in that way, but "upon application of the committee on grievances to the secretary of the board of medical examiners the services of an inspector or inspectors may be furnished for making necessary investigations for said committee."

The machinery thus provided for prosecution of unlicensed practitioners and for assisting the grievance committee in properly ascertaining the facts is an important and vital part of the bill. Having provided the machinery, it was necessary to provide the funds with which to operate it. This has been done in part through the means

LEGISLATION

HENRY L. K. SHAW, MD
Chairman, Committee on Legislation

HEARING ON THE PRACTICE OF MEDICINE ACT

A hearing on the Practice of Medicine Act was held in the Capitol at Albany on Wednesday afternoon, March 3, and lasted three and a quarter hours. Its brevity was in marked contrast with the length of the hearings in previous years, but a recent hearing on the chiropractor bills which lasted eight hours had previously given the cultists the opportunity to set forth their views at length.

The opponents of the bill were heard first. The only opposition from a medical source came from Rensselaer County, but a second speaker from that county gave the bill his hearty support. The principal opposition to the bill came from the chiropractors. Judge Vander Zee, their attorney, said that this was the fourteenth successive year that the chiropractors had come before the Legislature and asked for recognition. He argued that the practice of medicine means the giving of drugs internally and the performance of surgical operations. He said that the proposed law would prevent the administration of home remedies and the giving of emergency relief, and he seemed unaware that both of these practices are permitted by the bill. He admitted that the chiropractors were violating the law every day. He estimated that there were between 3,000 and 4,000 chiropractors in New York State, who were patronized by two million patients. He said that the Practice of Medicine bill was good and that he would support it with the addition of the two words "and chiropractors" to the list of those who were exempted from the provisions.

The pastor of a church described two cases where he had introduced a chiropractor who had cured them, and he said that chiropractic treatment had twice cured him of hiccoughs. He argued that all persons should have a right to take the treatment if they wanted it.

Mr Lyndon Lee, ex-president of the New York State Chiropractic Society, said that if a man studied medicine he could not practice chiropractic so efficiently as he could if he had chiropractic training only, for the physician's theory of disease was opposed to that of the chiropractor.

A representative of the naturopaths said that the State Society had 406 members, who wished to get recognition for all cults. The opponents of the bill used an hour in the presentation of their case and then proponents were also given

an hour under the leadership of Dr H L K. Shaw, Chairman of the Committee on Legislation. Dr Wendell C Phillips, President-Elect of the American Medical Association, spoke of the education of physicians at the present time. Dr Van Etten, President of the Medical Society of the State of New York, described the method by which the bill was drafted and emphasized the fact that it was supported by the State Medical Society.

Dr Louis I Harris, Commissioner of Health of the City of New York, said that his official duty was to protect the health of six millions of inhabitants of the city and that he must have the help of a body of medical men who were competent. He said he frequently received complaints from persons who claimed they had been improperly treated, especially by cultists. He closed by saying that if it were true that two million persons patronized illegal practitioners, that fact would be an evidence of an increased need of public education in medical matters.

Mr Homer Folks, Secretary of the State Charities Aid Association, said that his association had done state-wide work among needy children for half a century and that he was constantly compelled to secure medical relief for them. He argued that public opinion demanded that he get only competent medical assistance for the children. He said that the present law had been examined by the lawyers of the Association and found entirely legal and practical. His Association would therefore support it heartily.

A woman worker from the State Charities Aid Association pleaded for the adoption of a high standard of medical practice for the benefit of pregnant woman, all of whom should receive advice throughout the period of pregnancy.

Mr John A Kingsbury spoke on the lengthening of life in recent years chiefly as the result of medical knowledge, and said that a further lengthening depended on the skill and knowledge of physicians who were interested in public health.

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ever, have learned from sad experience in this and other States that too many legislators are prone to show a childish faith in quacks and to legalize the doing of things in ignorance which should be done only by the possessors of at least a part of the available information

"Already our own lawmakers have licensed one great group of practitioners who prove themselves charlatans by using only one remedy for all maladies. A second great group of much the same quality sees in the Webb-Loomis bill an attempt to 'put them out of business.' So it is, in one way, though not in another

"They have against them the reputable doctors and surgeons in the State, but the latter cannot be sure of success while our legislators listen

with seeming patience to such statements as that even a blacksmith should be allowed to treat the sick who desire his ministrations. They still have to learn that diagnosis, none too certain at best, is the only preparation for sound treatment, and that at its worst—by blacksmiths, masseurs and the like—it can be less than murder only by lack of intention to kill

'Of course, 'wonderful cures,' some of them real in the sense that recovery has followed treatment, can be instanced for every strange cult, and that is vindication for quackery in the estimation of those who forget the powers of suggestion in some cases and that many human maladies need only the 'healing power of nature''"

FRACTURED ELBOW—IMPAIRMENT OF FUNCTION

In this action it was charged that the physician who was engaged to attend and treat a fracture which the infant plaintiff had sustained to her left arm was negligent and careless so that the fractured parts improperly and imperfectly knitted, causing the arm to become crooked, thereby permanently depriving the child of the full and normal use of such arm

Upon the day of the injury the injured child was brought to the physician's office, and upon examination he found an extensive fracture of the elbow. At this time the arm had been given emergency treatment by some other physician, and the arm was in flexion and bandaged with a wet dressing. The child was sent to the hospital by the defendant, where he removed the bandages and by careful manipulation reduced the fracture under a general anaesthesia. X-rays were thereafter taken, which showed that the bones were not in perfect apposition. The arm was thereupon further manipulated and a second series of X-rays taken, which showed better position of the displaced parts. Thereafter, the arm was further manipulated and a third series of X-rays taken, which showed improved position in the reduction of the fracture. The arm was put up in flexion in a plaster cast. For the next three days the patient was seen by the defendant and thereafter the patient was under the care of his family physician. About ten days

after the injury the defendant, with the family physician, removed the cast and upon examination found the fractured parts in satisfactory position. The further care of the child was left to the family physician, with advice from the defendant as to passive motion and massage. About a month later the child was returned to the defendant physician, and upon examination at this time he found a marked limitation of motion of the elbow, flexion limited to 80% and extension to 110%, and thereupon suggested baking and massage at his own office. The patient received such treatment about three times a week for the next four weeks. The baking and massage were done by the defendant's nurse under his direction and supervision or by the defendant himself. The patient was last seen by the defendant about two months after the fracture and after the patient had had four weeks of baking and massage. When last seen by the defendant, there was a light increase in motion. The patient was thereafter not seen by the defendant nor any further treatment rendered by him. Upon rendition of his bill to the parents of the injured child, which was never paid, the defendant was met with the action of alleged malpractice.

After the action had remained on the calendar for some period of time and when about to be reached for trial, the plaintiff's attorney consented to the discontinuance of the action.



LEGISLATION



HENRY L. K. SHAW, MD
Chairman, Committee on Legislation

HEARING ON THE PRACTICE OF MEDICINE ACT

A hearing on the Practice of Medicine Act was held in the Capitol at Albany on Wednesday afternoon, March 3, and lasted three and a quarter hours. Its brevity was in marked contrast with the length of the hearings in previous years, but a recent hearing on the chiropractor bills which lasted eight hours had previously given the cultists the opportunity to set forth their views at length.

The opponents of the bill were heard first. The only opposition from a medical source came from Rensselaer County, but a second speaker from that county gave the bill his hearty support. The principal opposition to the bill came from the chiropractors. Judge Vander Zee, their attorney, said that this was the fourteenth successive year that the chiropractors had come before the Legislature and asked for recognition. He argued that the practice of medicine means the giving of drugs internally and the performance of surgical operations. He said that the proposed law would prevent the administration of home remedies and the giving of emergency relief, and he seemed unaware that both of these practices are permitted by the bill. He admitted that the chiropractors were violating the law every day. He estimated that there were between 3,000 and 4,000 chiropractors in New York State, who were patronized by two million patients. He said that the Practice of Medicine bill was good and that he would support it with the addition of the two words "and chiropractors" to the list of those who were exempted from the provisions.

The pastor of a church described two cases where he had introduced a chiropractor who had cured them, and he said that chiropractic treatment had twice cured him of hiccoughs. He argued that all persons should have a right to take the treatment if they wanted it.

Mr. Lyndon Lee, ex-president of the New York State Chiropractic Society, said that if a man studied medicine he could not practice chiropractic so efficiently as he could if he had chiropractic training only, for the physician's theory of disease was opposed to that of the chiropractor.

A representative of the naturopaths said that the State Society had 406 members, who wished to get recognition for all cults. The opponents of the bill used an hour in the presentation of their case and then proponents were also given

an hour under the leadership of Dr. H. L. K. Shaw, Chairman of the Committee on Legislation. Dr. Wendell C. Phillips, President-Elect of the American Medical Association, spoke of the education of physicians at the present time. Dr. Van Etten, President of the Medical Society of the State of New York, described the method by which the bill was drafted and emphasized the fact that it was supported by the State Medical Society.

Dr. Louis I. Harris, Commissioner of Health of the City of New York, said that his official duty was to protect the health of six millions of inhabitants of the city and that he must have the help of a body of medical men who were competent. He said he frequently received complaints from persons who claimed they had been improperly treated, especially by cultists. He closed by saying that if it were true that two million persons patronized illegal practitioners, that fact would be an evidence of an increased need of public education in medical matters.

Mr. Homer Folks, Secretary of the State Charities Aid Association, said that his association had done state-wide work among needy children for half a century and that he was constantly compelled to secure medical relief for them. He argued that public opinion demanded that he get only competent medical assistance for the children. He said that the present law had been examined by the lawyers of the Association and found entirely legal and practical. His Association would therefore support it heartily.

A woman worker from the State Charities Aid Association pleaded for the adoption of a high standard of medical practice for the benefit of pregnant women, all of whom should receive advice throughout the period of pregnancy.

Mr. John A. Kingsbury spoke on the lengthening of life in recent years chiefly as the result of medical knowledge, and said that a further lengthening depended on the skill and knowledge of physicians who were interested in public health.

Dr. Samuel J. Kopetzky, ex-President of the Medical Society of the County of New York, argued for the need of a high basic scientific education for all who aspired to practice any healing art. He cited the use of X-rays as an example of what many ignorant healers wished

to use, but which was actually as dangerous as a knife

Dr Augustus Downing, Assistant Commissioner of Education, who has been active for a score of years in maintaining and raising the standards of medical practice, argued for annual legislation. He said that as a result of it sixteen hundred dentists who were practicing illegally had left the state. He explained some of the requirements of the bill, and answered those who had been misinformed about the contents.

Dr Matthias Nicoll, Jr, State Commissioner of Health, described difficulties he had in enforcing contagious disease prevention, and argued in favor of a bill which would discipline physicians as well as exclude those who are incompetent to recognize or treat scarlet fever and other contagious diseases.

Mr Lyndon Lee, in rebuttal of the doctors arguments, said that it was not fair to suggest that the chiropractors be required to study in a medical college, because no college would receive them. He had received letters to that effect from the Deans of some of the colleges.

Mr Lloyd P Stryker, counsel for the Medical Society of the State of New York, closed the hearing in a stirring speech. He said that

the law required a doctor to give treatment in accordance with the state of medical knowledge, and to be neither ahead or behind the times. He quoted from the sworn testimony of leading cultists in cases against chiropractors to show that they said that it was not necessary for a practitioner of that cult to know what ailed a patient. One of the advocates of the cultists interrupted the speaker and said that he wanted to prevent that kind of practitioner from practicing. Mr Stryker said that the question at issue was not the relative merits of different classes of healers, but whether or not any one should be allowed to practice medicine without preliminary scientific education. The cults violated this principle when they sought recognition by means of a waiver clause. The value of any particular kind of scientific service could not be decided by a popular vote, any more than questions in astronomy could be decided by a canvass of popular beliefs. The Practice of Medicine bill was directed against all fakers and incompetents in medicine.

The general impression among the doctors that attended the hearing was that it set a new standard by the manner in which it was conducted and by the effectiveness of the addresses.

LEGISLATIVE BILLS

Although the Legislature has been in session for nearly two months, new bills affecting public health are still being introduced and original ones amended. It is, therefore, difficult to print an accurate estimate of legislative affairs. However, the Committee on Legislation are sending weekly bulletins to the Chairmen of the Legislative Committee of the County Society and these contain summaries of the medical bills and the actions taken on them. The three bulletins that have been issued are printed in this department.

A hearing on the Chiropractic Bill was held on February 24, and lasted all the afternoon and evening. The comments on this hearing contained in bulletin number three express the feelings of the physicians who were present.

A hearing on the Jenks Podiatry bill, assembly Int. 417, was held on the morning of March third. The chiropodists asked that they be allowed to use the title of doctor on the ground that people generally already address them as doctor. They wish to add the word "of podiatry" after the word doctor. The representative of the State Medical Society protested against their request, but Dr Downing of the Department of Education was inclined to grant their request, provided the words "of podiatry" were added in type as large as that used with the word "doctor."

Also a hearing was held on Assembly Introductory bill, number 726, the Ricca bill, which would license the makers of orthopedic appliances. The proponents of the bill propose to establish a board of "Orthopedistry" which would license the makers of trusses and other orthopedic appliances. But since the word orthopedistry resembles orthopedics, which is a medical specialty, the backers of the bill had withdrawn it and substituted another in which the word "Bandagistry" was used in place of orthopedistry. The makers of braces and trusses claim that the word bandagistry is applied to their work in Europe and that they wish to be known as bandagists.

When the physicians that were at the hearing opposed the bill on the ground that it would permit the bandagists to make diagnoses, the bandagists said they would be willing that a clause be inserted forbidding them to make diagnoses, or to prescribe an apparatus except on the prescription of a physician.

The usefulness and need of the bill are extremely doubtful. It seems to be an attempt of another group to secure special privileges under the plea of purifying its ranks and raising its standard of practice.

Another cult or specialty or mode of treatment has been adopted into the family of fifty-

seven cults listed by the Department of Health of New York last Spring. Senate bill, introductory 782, is on the subject of oralgys. An oralgyst would seem to mean a throat and mouth specialist, but according to the bill a person practices oralogy "who holds himself out as being able to prevent, diagnose, treat or eliminate disease conditions." Only licensed physicians or dentists can become oralogysts. The list of

studies to be pursued in order to obtain the title ends with the subject of spinal analysis. The bill would seem to represent an attempt of unsuccessful dentists to secure a permit to practice chiropractic in form if not in name.

Three Legislative Bulletins have been sent to the Chairmen of the Legislative Committees of the County Societies.

LEGISLATIVE BULLETIN No 1

February 17, 1926

No important action was taken during the week on any of the bills reported to you in our last communication. Several new bills in which you will be interested have been introduced in the meantime.

IN SENATE

OSTEOPATHIC FIELD OF PRACTICE

Senate Introductory No 549—A bill introduced by Mr Gibbs, would amend the Public Health Law in relation to the practice of osteopathy, by adding a new clause which would give osteopaths authority to perform minor operations and to administer narcotics for the relief of suffering, anaesthetics, antiseptics, vaccines and anti-toxin, the anaesthetics to be used in minor operations. The more recently graduated osteopaths have, for several years, been considering asking for this amendment. Let us know your opinion upon it.

IN ASSEMBLY

BOARD OF TRUSTEES OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

Assembly Introductory No 725—concurrent Senate Introductory No 532—A bill introduced in the Assembly by Dr Lattin is an amendment prepared by our Society making possible the organization of a Board of Trustees. This amendment was introduced in accordance with action taken by the House of Delegates at the annual meeting in Syracuse.

FITTERS OF ORTHOPEDIC APPLIANCES

Assembly Introductory No 726—concurrent Senate Introductory No 582—A bill introduced in the Assembly by Mr Ricca, would amend the Public Health Law by adding new matter under which those persons who sell and fit orthopedic appliances would be licensed by the State and operate under a special board of their own. Anybody reading this bill can readily see that if this provision were enacted into law, those who build, fit and sell appliances would be authorized to apply them on their own initiative, and thereby would, of course, assume to diagnose the condition which they attempt to remedy. You must

certainly have an opinion with regard to this bill. Let us have it.

Assembly Introductory No 892—A bill introduced by Mr Miller would amend the Workmen's Compensation Law in relation to occupational disease arising out of employment. This is an important bill, because men sometimes discover that having left an occupation for a year or more, that they are victims of a disease which the physician diagnoses as having been caused by conditions in the previous occupation. Study this bill carefully and give us an opinion on it.

Assembly Introductory No 690—A bill introduced by Mr Meegan would amend the Public Health Law in relation to the definition of practice of medicine. Comment on this bill was made on page 5 of our previous communication.

PRACTICE OF MEDICINE BILL

Our Medical Practice Act has been introduced by Dr Loomis, and will bear the number Assembly Introductory No 955. Printed copies of this bill will be available in four or five days and you will get a copy with the next bulletin.

COMMITTEE HEARINGS

- February 17th—Assembly Int No 389—Health Officers, local (Lattin)
Assembly Int No 657—Health Law, Dentistry (Lattin)
Assembly Int No 725—State Medical Society, Board of Trustees (Lattin)
February 24th—Assembly Int No 65—Workmen's Compensation (Miller), (conc Senate Int No 35), Medical Care (Truman)
Assembly Int No 153—Health Law, Chiropractic (Esmond)
Assembly Int No 331—Workmen's Compensation, eye, rules (Miller)
Assembly Int No 364—Workmen's Compensation, vision tests (Hofstadter)

LEGISLATIVE BULLETIN No 2

February 24, 1926

We are pleased to say that in response to our urgent solicitations for opinions, we have to date had comments from at least a dozen men and Medical Societies on more than a dozen bills. This is very encouraging, and we hope that the number may increase materially in response to this, our second bulletin.

Since our last communication there have been introduced to the Legislature the following bills in which we are interested

THE PRACTICE OF MEDICINE BILL

Assembly Introductory No 955—concurrent Senate Introductory No 717—An amendment to the Medical Practice Act. This is the bill in which we are vitally interested. It is being sponsored in the Assembly by Dr Loomis from Delaware County, who is very enthusiastically "selling" the bill to the members of the Assembly individually.

DENTAL BOARD

Assembly Introductory No 917—concurrent Senate Introductory No 688—A bill introduced by Dr Lattin would amend the Public Health Law concerning the practice of dentistry, allowing for an increase in the salary of the secretary of the Dental Examining Board and providing that the monies collected through fees, fines and penalties shall be paid to the Regents of the University, and be available, together with appropriations that may be made from time to time by the Legislature, for the payment of salaries and expenses connected with the activities of the Examining Board—and the fine for practicing without a license is increased from \$50.00 to \$100.00.

PRIVATE HOSPITALS

Assembly Introductory No 919—concurrent Senate Introductory No 741—A bill introduced by Mr Hofstadter. A copy of it is being sent you because it aims to correct a very serious matter. It would make it a misdemeanor for any one to obtain board, medical supplies or nursing at a privately owned hospital or sanitarium by means of any false pretense or with an intent to defraud. This bill your Committee will certainly support unless there are special reasons for opposition of which we are not aware.

TESTING EYES OF SCHOOL CHILDREN

Assembly Introductory No 937—A bill introduced by Mr Eberhard. This bill has not yet been introduced in the Senate. It would amend the Education Law authorizing the em-

ployment of optometrists or oculists to make eye tests of pupils attending the public schools. A copy of the bill is being sent, that you may read it over carefully and advise the Committee immediately with your opinion as to whether we should support or oppose the bill.

CHAUFFEURS' EXAMINATIONS

Assembly Introductory No 948—A bill introduced by Mr Landau. This bill has not yet been introduced in the Senate. It would require that all operators or chauffeurs be examined by a physician to determine if they are physically fit to operate a motor vehicle, certificate thereof to be attached to application for license.

X-RAY TREATMENTS

Assembly Introductory No 1025—concurrent Senate Introductory No 709—A bill introduced by Mr Landau would amend the Public Health Law by defining the practice of medicine to include the application of X-ray treatment to any person. This is a very important bill, and it is hoped that you will read the enclosed copy very carefully and then give us your reaction. In New York City at the present time the matter of licensing X-ray operators is receiving a great deal of attention. It is, therefore, a very opportune time for the State to be considering it.

INSPECTORS OF SCHOOL CHILDREN

Assembly Introductory No 1042—A bill introduced by Mr Rice. This bill has not yet been introduced in the Senate. It would amend the Education Law in order to provide that where two physicians are employed as inspectors of schools, each devoting one-half of his time to the duties, the money apportioned by the State for one full-time inspector shall be divided between them in accordance with the time devoted. There may be no objection to dividing the money apportioned for a full-time school inspector between two or more physicians who will devote as much time to the work as a single man might, but there is, however, a condition produced thereby which should receive the attention of the medical men—that is, that while the bill calls for a full-time inspector, it would mean that one man should devote his entire time during the school hours of the day to the work of the school. It does not prevent him from practicing medicine in other parts of the twenty-four hours, and if the school hours are divided between two or more physicians, of course, each in turn will have more time for continuing the practice of medicine.

LEGISLATIVE BULLETIN No 3

HEARING ON THE CHIROPRACTIC BILL

March 2, 1926

Last Wednesday, February 24th, the Esmond Chiropractic Bill was discussed before the Assembly Committee on Public Health. The following organizations and persons appeared with us in opposition to the bill:

From the Department of Education, Dr Downing
From the Department of Health, Dr Nicoll
American Association for Medical Progress
State Charities Aid Association
Bowling Green Neighborhood Association
East Harlem Health Center
Association for Improving the Condition of the Poor, New York City
Federated Neighborhood Association, New York City
Henry Street Settlement, New York City
American Social Hygiene Association
New York Tuberculosis and Health Association
Westchester County Tuberculosis Association
Albany County Tuberculosis Association
Tompkins County Tuberculosis Association
President of the Osteopathic Society
Assemblyman Hall, who came at the request of the physicians of Orange County

The usual persons spoke in favor of the bill—namely, Mr Esmond himself, who took up about half the time allowed the opposition. His methods were very objectionable to the chairman and members of the Committee. He heckled every opponent by asking leading questions which he alone was willing to answer. His methods were finally so objectionable that Dr Lattin offered him the gavel and asked him if he did not want to preside.

The others who spoke in favor of the bill, were

Past-President Lee of the State Chiropractic Association

Representatives of the Chicago and New York Schools of Chiropractic

Mr Vanderzee, their counsel

It is hardly possible that the bill will come out of Committee this year.

HEARING ON WORKMEN'S COMPENSATION BILLS

On February 24th there were hearings before the joint Senate and Assembly Committees on Labor and Industry on two important compensation bills—namely, the Eye Bill (Assembly Introductory No 331—Miller) and the Medical Reorganization Bill (Assembly Introductory No 65—Miller). The labor unions brought strong delegations in opposition to both of these bills. Dr Snell of Rochester and Dr Bennett of Buffalo appeared in favor of the Eye Bill and offered

amendments which will be incorporated and probably make possible the passage of the bill this year, but the opposition to the Medical Reorganization Bill was so powerful that there is grave doubt as to whether it can be amended satisfactorily this year.

TRUSTEE BILL

Our Trustee Bill (Assembly Introductory No 725—Senate Introductory No 532) has been passed by the Assembly and referred to the Senate.

We are preparing for hearings on March 3rd on the following bills:

CHIROPODISTS AND THE TITLE OF DOCTOR

Assembly Introductory No 417—Jenks—concurrent Senate Introductory No 552—Karle)—Use by chiropodists of the title "doctor." The chiropodists ask to be permitted to display at their offices their names in the following manner:

"Dr John Doe, Chiropodist"

The Department of Education has told them that they will be satisfied to permit the chiropodists to use such display, providing they use the same size letter for the name, title and word "chiropodist." They refuse to approve of a display, which would show "Dr John Doe" in a larger type than the word "chiropodist."

LICENSING BRACE MAKERS

Assembly Introductory No 726—Ricca—concurrent Senate Introductory No 582—Hastings—(see bulletin No 1 for discussion). We have had many letters from orthopedists urging us to oppose this bill on the ground that it would permit manufacturers of splints to make their own diagnoses.

X-RAY DIAGNOSES

Assembly Introductory No 1025—Landau—concurrent Senate Introductory No 709—Carroll—(see bulletin No 2 for discussion). Mr Landau advises us that there was a mistake in drafting the bill. He did not mean to regulate X-ray treatment, but X-ray diagnosis, and he will so amend the bill at the hearing tomorrow. He also agrees that it is not a wise move on his part to endeavor to have the definition of the practice of medicine changed so as to include diagnosis by X-ray, and will try to add his amendment to another part of the law.

PRACTICE OF MEDICINE BILL

Assembly Introductory No 955—Loomis—concurrent Senate Introductory No 717—Webb—Since this bill has been printed, Dr Stanton of Schenectady offered a serious objection to the wording in several places. He suggested different wording which was accepted by both intro-

ducers and the bill will be so amended immediately. Copy of these amendments were sent you in a letter two or three days ago.

We have just learned that the osteopaths will appear in opposition to our bill on the ground that we have shown no inclination to support them in their efforts to secure permission to use anæsthetics. The only other definite opposition that we are aware of, will come from the chiropractors.

The following bills have been introduced during the last week.

IN SENATE

Senate Introductory No 757—introduced by Mr Byrne. This bill has been introduced annually for the last several years. It is opposed by the Department of Health and charity organizations. We wish you would look over the enclosed copy and tell us whether you think we should support it.

ORALOGY BILL

Senate Introductory No 782—introduced by Mr Bouton. A copy of this bill is being sent you. Read it over carefully. It is one of the most ridiculous bill that has been introduced this year. Note particularly the subjects that examinations must be passed in before the degree will be granted, then note the definition of the term "oralogy," and observe, also, that only graduate physicians and dentists are eligible to the examinations, and that whoever successfully passes the examinations will be eligible to the degree of doctor of public health and may use the initials "D P H" in connection with his name. Suspicion is immediately aroused, when it is noted that among the list of studies to be undertaken is spinal analysis.

IN ASSEMBLY

SALE OF EYE GLASSES

Assembly Introductory No 1051—Mr Meehan reintroduced his bill of last year, which would provide that eye glasses, spectacles and lenses shall not be sold at retail unless licensed physician or optometrist is in charge of counter or booth. Last year we took a neutral position with regard to this bill. We appreciate that harm can come from permitting young people to fit themselves with eye glasses, but we also appreciate that people with presbyopia alone can frequently fit themselves very satisfactorily. The bill also specifies lenses, probably meaning hand reading glasses.

WORKMEN'S COMPENSATION

Assembly Introductory No 1073—concurrent Senate Introductory No 759—This is a bill introduced by the Department of Labor and Industry, and is identical with the latest print of Mr Miller's bill, Assembly Introductory No 331. It was included with those receiving a hearing on February 24th.

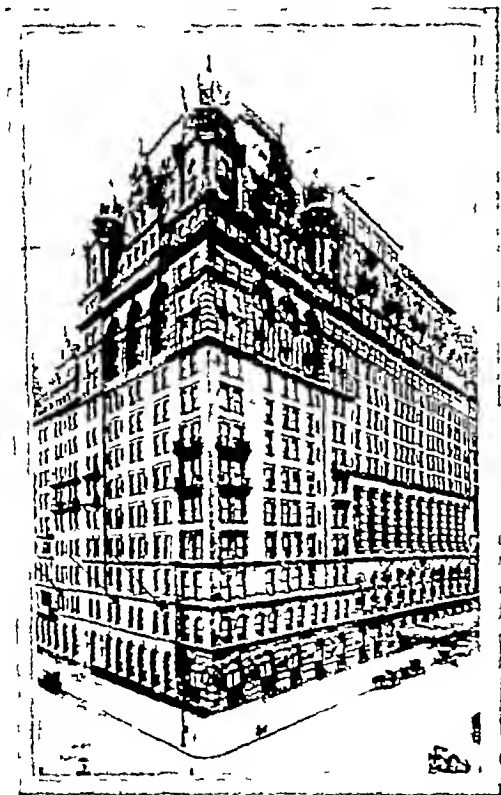
ANÆSTHETISTS IN HOSPITALS

Assembly Introductory No 1097—A bill introduced by Mr Grossman, which would amend the Public Health Law by providing that physicians only shall administer an anæsthetic in hospitals. Mr Grossman seems to have originated this bill himself, attributing some influence to a friend. He says that it is his opinion that administering an anæsthetic is a serious undertaking, and that nurses should never be allowed to do it. Already opposition to this bill is appearing. Won't you write us your instructions immediately?

THE ANNUAL MEETING

THE ANNUAL MEETING

The Annual Meeting of the Medical Society of the State of New York will be held on March 29 to April 1, inclusive, in the Waldorf-Astoria, Thirty-fourth Street and Fifth Avenue, New York City. This well known hotel is ideally situated and arranged for the meeting and nearly the whole space of the second floor will be occupied by the Society. The meeting rooms of the exhibits open off from spacious corridors, and abundant opportunities are offered for meeting one's friends and holding informal conversations and conferences.



The Hotel Waldorf-Astoria, where the Medical Society of the State of New York will meet.

The four days of the meeting will be filled with features so fully that one will not need to leave the Hotel during the entire session. However, the hotel is within easy access of hospitals and clinics where one may see the latest diagnostic and therapeutic procedures exemplified. Possibly some of the doctors will wish to visit the theatre district, which is within easy access of the hotel.

The physical provisions for the meeting are more nearly perfect than those for any previous meeting.

The rooms are on the second floor, within easy walking access from the main entrance. The facilities of the hotel are at the disposal of the members and their friends.

Other meetings will also be held in the Waldorf-Astoria Hotel. The State Laboratory Association will convene and there are always other medical organizations who take the opportunity to hold their annual meetings while the physicians are convened.

The Registration Booth will be in the corridor at the head of the main staircase, where no one can possibly miss it. Be sure to get a lapel button and wear it.

The Registration Booth will also be the headquarters for information. There the press reporters may obtain data concerning the members and the meetings.

The programs of the Scientific Sessions are printed on page 283 of this issue and will be found to be of unusual interest and practical value.

The Syphilis Exhibit and lectures on Thursday will be modelled after the exhibit on Tuberculosis held on the closing day of last year's sessions. That exhibit set a new standard for an exhibition on a special subject, but profiting by the experience the Scientific Committee have set out to beat its own record.

The program of the exhibit is printed on page 289 of this JOURNAL. Specimens and charts will be exhibited and a complete picture of syphilis and every part of the body will be shown as far as possible. At least fifteen distinct phases of pathology will be shown, including the congenital type of paresis, and syphilis of the eye and ear. Among the institutions which will have exhibits and demonstrations are the Bellevue, the City Mount Sinai, and the New York Hospitals, the Rockefeller Institute, the City Department of Health, the Vanderbilt Clinic, the Dental College, and the New York State Department of Health.

Demonstrators will be present during the morning to explain the specimens and lectures will be given during the afternoon.

All come prepared to spend Thursday viewing the exhibit.

THE COMMERCIAL EXHIBITS

Every physician who attends the Annual Meeting of the Medical Society of the State of New York is deeply interested in the tools and equipment with which he works. He wishes to see the newest products, to get acquainted with the exhibitors, to handle the outfits and to become familiar with the newest phases of mechanical appliances. The visiting doctors will find many of their questions answered by the exhibit-

ors who have taken spaces on the same floor with the meeting halls.

Sixty exhibitors will show their products from booths which are readily available to all the doctors as may be seen by reference to the chart on page 270. The following descriptions of their products have been furnished by the exhibitors themselves.

LIST OF EXHIBITORS

	Booth Number		Booth Number
Abbott Laboratories, New York, N. Y.	6	J. B. Lippincott Company, Philadelphia, Pa.	22
Allison Co., N. Y.	19	McIntosh Electrical Corp., Chicago, Ill.	36
American Medical Association	54	Merrell Soule Company, Syracuse, N. Y.	15
Anglo-French Drug Co., New York, N. Y.	16	Herman Metz, New York, N. Y.	35
D. Appleton & Company, New York, N. Y.	51	E. B. Meyrowitz, New York, N. Y.	9
Bausch & Lomb, Rochester, N. Y.	55-56	C. V. Mosby Company, St. Louis, Mo.	47
Becton, Dickinson Co., Rutherford, N. J.	20-21	V. Mueller & Company, Chicago, Ill.	3
Harold Bennett, New York, N. Y.	27	Multiplex Display Fixture Company, St. Louis	70
Frank S. Betz, New York, N. Y.	62	Mutual Pharmacal Co., Syracuse, N. Y.	37
P. Blakiston's Sons & Co.	38	Thomas Nelson & Sons, New York, N. Y.	23
Cambridge Instrument Co., Ossining, N. Y.	7	E. L. Patch, Stoneham 80, Boston, Mass.	41-42
Cameron Surgical Specialty Co., Chicago, Ill.	48	Praus American Instrument Co., New York	31
C. P. Chemical Company, New York, N. Y.	64	James Picker, Inc., New York, N. Y.	2
F. A. Davis Company, Philadelphia, Pa.	26	S. Pongho & Co., New York, N. Y.	59
Deshell Laboratories, Brooklyn, N. Y.	18	Prometheus Electric Co., New York, N. Y.	34
De Vilbiss Manufacturing Co., Toledo, Ohio	50	Radium Emanation Corp., New York, N. Y.	16
H. T. Dewey & Sons, New York, N. Y.	11	Sanborn Company, Cambridge, Mass.	24
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Fairchild Bros. & Foster, New York, N. Y.	33	W. B. Saunders Company, Philadelphia, Pa.	43
H. G. Fischer & Co., Inc., Chicago, Ill.	60	J. S. Sklar, Brooklyn, N. Y.	13
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K. & B. Electric Equipment Co., New York	4-5		
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BOOKS

Booth 54—The American Medical Association, Chicago, Illinois, will have on exhibit a complete display of all American Medical Association publications. In addition to the Journal (American and Spanish Editions) the A. M. A. will show the several Archives in the various branches of medicine including the new Archives of Pathology and Laboratory Medicine, American Journal of Diseases of Children and also Hygiene and numerous pamphlets and reprints of spe-

cial interest to Physicians and Health Workers.

The official American Medical Association emblem will also be shown in the regular radiator style and combined with the Signaphore.

Physicians will be especially interested in the exhibit of the A. M. A. for it is their own organization. A visit to the booth will reveal the comprehensive activities of the national medical organization and its service to the individual physician.

Booth 51—D. Appleton & Company, who in 1925 celebrated its hundredth anniversary, has on display a number of its medical publications. Among these appear the monumental work of Frederick Forchheimer in a new edition which is edited by George Blumer of Yale, also the Appleton series of Monographs on Gynecology and a number of Monographs on Surgery.

Such well-known texts as Holt's "Diseases of Infancy and Childhood," Osler's "Principles and Practice of Medicine," Rosenau's "Preventive Medicine and Hygiene," Keyes' "Diseases of the Genito-Urinary System," Williams' "Obstetrics," and many others are on display. These old and well known texts have been kept up by numerous revisions, so that they represent the latest advance in medicine.

Booth 38—P. Blakiston's Son & Co. present an exhibit of its complete list of Medical Books, including many new titles that have appeared within the last few months. Of special interest are the following books, all published this year, or late in 1925: Deaver's "Surgical Anatomy" (3 vols.), Greene's "Medical Diagnosis" (2 vols.), Riehl and von Zumbusch "Skin Atlas" (3 vols.), Fulkerson's "Gynecologic Urology," Potter's "Therapeutics," Enfield's "Radiography," Matthes' "Differential Diagnosis," and numerous other titles.

Booth 26—The F. A. Davis Company of Philadelphia will exhibit its publications, including the following:

The new, entirely rewritten edition of "Modern Ophthalmology" by James Moores Ball of St. Louis, Mo., in two large, handsome royal octavo volumes.

"Diseases of the Ear, Nose and Throat," by Harold M. Hays of New York.

A thoroughly modern work on "Gynecology, Medical and Surgical" by P. Brooke Bland of Philadelphia.

A new (6th) revised edition of "Diseases of the Stomach and Upper Alimentary Tract" by Anthony Bassler of New York.

"Feeding and the Nutritional Disorders in Infancy and Childhood," new (4th) revised and enlarged edition, by Julius H. Hess of Chicago.

These and many other important new books and new editions may be seen at Exhibit Booth No. 26.

Booth 12—Paul B. Hoeber, Inc. During the past year this house has added to its list an unusually large number of publications which seem destined to take their place as standard works. It will show its entire line, including the *Annals of Roentgenology* and the famous *Annals of Medical History*. It calls particular attention to the following of their new publications: Sachs and Hausman's "Nervous and Mental Disorders from Birth through Adolescence," "Henry Ford Hospital Report," Jackson's "Goiter," "Transactions of the Charaka Club," Stewart's

"Physiotherapy," Stewart's "Skull Fractures, Roentgenologically Considered," and the beautiful atlas by Lynch and Felsen on "Tumors of the Colon and Rectum."

There will also be shown some of its earlier outstanding publications, such as Tilney and Riley's "Form and Functions of the Central Nervous System," Elsberg's "Tumors of the Spinal Cord," Ruhrah's "Pediatrics of the Past," Kereley and LeWald's "Digestive Disturbances in Infants and Children, Roentgenologically Considered," Aschoff's "Lectures on Pathology," Gross's "Blood Supply to the Heart," Osgood's "Teeth and Jaws, Roentgenologically Considered," Pardee's "Clinical Aspects of the Electrocardiogram," etc.

As usual, this house will display a number of rare medical items.

Booth 22—J. B. Lippincott Company invites you to its special exhibit of important new publications of timely interest to the progressive physician. Outstanding new titles on display are Karsner's Textbook of Pathology, Craig's Parasitic Protozoa of Man, Foote's Diseases of the New-Born, Henderson's new translation of Meyer and Gottlieb's Experimental Pharmacology, Cushing and Bailey's Classification of the Tumors of the Ghoma Group, the new printing of Spalteholz's Anatomy, the Third Edition of Villiger's Brain and Spinal Cord, the Third Edition of Dennett's Simplified Infant Feeding, Van Leeuwen's Allergic Diseases, the year's cream of practical medicine in the International Clinics and our regular line of standard medical work.

Booth 47—The C. V. Mosby Company will exhibit standard texts and monographs. These will include the new edition of Crossen "Operative Gynecology," Horsley "Operative Surgery," Hirschman "Diseases of the Rectum," Sutton "Diseases of the Skin." Among the newer texts and monographs will be Duke "Allergy," Orr "Amputation," Adam "Asthma," Ryall "Operative Cystoscopy," Beattie and Dickson "Pathology," Mayo and Plummer "Thyroid Gland," Hamilton "Psychopathology."

The company will also show its line of special Journals, including *The American Journal of Obstetrics and Gynecology*, *The American Heart Journal*, *The American Journal of Syphilis* and *The Journal of Laboratory and Clinical Medicine*. Dr. E. E. Stillman will be in charge.

Booth 23—Nelson's Loose-Leaf Living Medicine is an international work on internal medicine, in eight volumes, including index volume, bound in three-quarter Persian morocco, and fully illustrated with charts, tables, microphotographs, roentgenograms, cardiograms, and photographs showing the actual clinical conditions which present themselves to the practitioner. There are, in addition, a large number of colored plates prepared especially for this work and representing the finest type of medical illustration.

There is furnished also to all subscribers free membership to the Nelson Service Bureau, which gives additional information on any and every subject in internal medicine

The splendid reception accorded medicine by the medical profession has induced the publishers to undertake the publication of a "Surgery," complete in seven volumes and Index Volume, which is now in preparation

Booth 43—W. B. Saunders Company, publishers, Philadelphia and London This company will exhibit a complete line of their publications

Of particular interest will be Young's new work on "Urology", Lihenthal's "Thoracic Surgery", Bickham's "Operative Surgery", Abt's work on "Pediatrics", Cabot's new work on the "Heart" Moynihan's new edition of "Abdominal Operations", Anders and Boston's "Medical Diagnosis", Palfreys "Art of Medical Treatment", Pratt and Bushnell's "Chest Diagnosis", thirteenth edition of "The American Illustrated Medical Dictionary", Boyd's "Surgical Pathology", Morse's "Biochemistry", and advance sheets of the new Mayo Clinic volume

ELECTRO-THERAPEUTICS

Booth 48—The Cameron Surgical Specialty Company will give clinical demonstrations of Transillumination, direct illumination, Electro-cauterization, and high frequency Cauterization with the Cauterodyne as applied to all phases of minor and major diagnostic, operative, and therapeutic procedure

Booth 60—H G Fischer & Co, Inc., of Chicago, Ill, will have a complete exhibit of the latest developments in electro-physiotherapeutic equipment. Special attention is called to the two radical departures from customary diathermy machine construction, as embodied in their two latest units Its large Senior Diathermy Cabinet is the most versatile equipment of its type, with a splendid range of power, and their new Portable Type "G" makes a wonderful all-around diathermy outfit for use in the office, operating room or patient's home

Booths 4-5—The K. & B Electrical Equipment Co will show the latest developments in X-Ray and Physiotherapy Equipment Kelley-Kcet's latest device—the Orthodiagraphoscope—will be shown, and also their compact system of units Bring your problems to us for our suggestions and advice and remember we have nineteen years of experience to guide us Our Mr Hamby of Rochester Office also Mr Wiberley of Troy, will be there to greet you

Booth 36—The McIntosh Electrical Corporation of Chicago, with forty-six years accumulated experience in the manufacture of Electro-Physiotherapy equipment, will have on display its latest models of apparatus, including the Biolite, the new Infra Red Ray Generator

Constant attention to the newer developments in apparatus and equipment in American and European clinics enable them to place at the disposal of the medical profession the latest products in modern Electro-Physiotherapy Equipment

Booth 2—James Picker, Inc., will exhibit some of the latest developments in the construction of X-Ray Equipment including the new

Table where the Bucky Diaphragm is built in and made an integral part of the Radiographic Table

On display also are the Six-Sixty Generator—the most powerful X-Ray Machine of its size available today, and a Vertical Fluoroscope, which will be found surprisingly easy of movement

The Polytherm Generator—a heavy duty diathermy machine—will also be on display and in actual operation

Booth 59—S Pongho & Co. will show a combination electric-heated treatment table that is used in combination with the vertical electric light bath Both products are of the highest standard from the point of application, construction and finish The table proper is finished in mahogany, with hair-filled cushions on top The interior of the electric bath cabinet is finished with highly polished German silver covered with five-ply asbestos, and then finished with the brown duck canvass

Descriptive literature will be distributed

Booth 24—The Sanborn Company will demonstrate metabolism testing and will feature the Sanborn Graphic, a simplified, compact oxygen consumption apparatus, and also the Sanborn Benedict—1926 Model This new model has as an integral part a firmly built, noiseless Kymograf which gives the story of the metabolism test in writing, and a quiet-running, dependable motor and blower—(slow speed) for circulation of air and comfort in breathing

Heart specialists are especially invited to see the Sanborn Electrocardiograf in operation This apparatus is constructed on the standard principle of the Einthoven Galvanometer, but is simplified for practical use in office or hospital

Booth 13—J Sklar Manufacturing Co.—The Imperator Treatment and Diagnostic Unit is the latest development in the line of Suction and Pressure Apparatus This new four-cylinder outfit will be featured at the booth This apparatus in reality is two machines in one, thereby

providing a powerful and efficient unit for simultaneous or separate use of suction or pressure without inter-communication. This progressive unit is incased in a beautifully designed cabinet, in which are built all the necessary aids to diagnosis and treatment in nose, throat and ear work.

Other late developments on display will be Stein-O-Lite and Dr. Harry Koster's Blood Transfusion Apparatus.

Booth 8—The Standard X-Ray Sales Corporation will exhibit X-Ray and Diathermy Apparatus manufactured respectively by the Standard X-ray Company of Chicago and the Lugenli Electric Company of Cleveland.

Inspect our new surgical combined Diathermy Apparatus and the DeLuxe Model one hundred twenty-five P K V combined X-ray, Fluoroscopic and Superficial Therapy Machine.

We will cheerfully demonstrate apparatus to the profession without any obligation whatsoever. If you have any Physio Therapy or X-ray installation problems, consult us as our fifteen years experience specializing in this field makes it possible for us to give you suggestions and layouts that are practical from the point of view of both patients and operators.

Booth 45—The Victor X-Ray Corporation will show a number of new pieces of equipment of interest to the roentgenologist and the physical therapist, as developed by the Research and

Engineering Departments of this organization.

The Motor-Drive X-ray Table, Stabilized X-ray Timer (especially adapted for "flash" radiography), Vertical Stereo-Radiographic Unit with Automatic Tube Shift and Rotating Bucky Fluoroscopic Grid are some of the major X-ray items that will be shown.

Take note of the Victor line of Diathermy apparatus (both medical and surgical), also the distinctive features in Victor Ultra-Violet Quartz 1 amp, the Wantz Multiple Wave Generator for galvanic and sinusoidal therapy, and Victor Phototherapy Lamps.

Booth 1—The Wappler Electric Company will display the Squier Cystoscopic X-Ray Table, Wyeth Endotherm, Clark Excell Diathermy apparatus and the new prismatic Stereoscope. Also a complete line of the A C M I Cystoscopes and Diagnostic Instruments including the new Dr. J. F. McCarthy Pan-Endoscope and the new Coralite Diathermy Accessories.

The Squier Cystoscopic X-Ray Table is finished in a highly polished hospital gray with nickel trimmings and polished black top and contains every necessary attachment and adjustment for convenient operation both as a cystoscopic examining table and a radiographic table.

The Endotherm, a surgical machine, will be also demonstrated.

FOODS

Booth 11—H. T. Dewey & Sons Company will exhibit and dispense samples of wine-grape juice, in order that physicians may test for themselves the deliciousness and nutritive value of the product.

Dewey's Wine-Grape Juice can be retained by the most delicate stomach when most other nourishment cannot be taken. It also has filled a long felt need for all post-operative cases and typhoid fever patients.

The limited quantity of fine sun-ripened south Jersey wine grapes from which Dewey's Wine-Grape Juice is made, make it impracticable to place it in the hands of all dealers. If you leave the name of your druggist at our booth we will arrange with him to carry a sufficient quantity to supply the needs of your patients and yourself.

Booth 46—The Dryco Milk Company, 15 Park Row, New York, will exhibit at its booth, No. 46 its product Dryco, a special milk for babies, and Protolac, a calcium caseinate. It will also have a souvenir for its medical friends. It will also give some handsome posters, printed in colors of the "Dryco Baby." These will be mailed to the doctor's homes upon request. Literature giving full data regarding the use of Dryco will be distributed.

Booth 32—The Horlick's Malted Milk Corporation, of Racine, Wisconsin, invites your attention to its exhibit at Booth 32 of Horlick's

the Original Malted Milk, a nourishing food drink in all wasting diseases, and easily digested and strengthening for convalescents. Including the vitamins and mineral elements both of the grain and of rich, full-cream milk, it is especially useful for expectant and nursing mothers, and in difficult infant feeding cases.

Booth 15—The Merrell-Soule Company will exhibit its group of dehydrated milk adaptations, Klim, Powdered Protein Milk, Powdered Lactacid Whole Milk and its new carbohydrate, Vi Mal-Dex. Representatives will be at the exhibit at all times prepared to discuss the merits of these preparations with visiting physicians.

Ice cold reliquified Klim and Klim Wafers will be served at the exhibit and souvenir boxes of the Wafers will be given to all physicians and physicians' wives desiring them.

Booths 41-42—The E. L. Patch Co., of Boston, Mass., will explain the manufacture and testing of Patch's Flavored Cod Liver Oil. There will be an interesting exhibit showing the various steps in the process of making cod liver oil from fresh livers. Some of the laboratory animals will be there too. These little albino rats play an important part in biological assay of Patch's Cod Liver Oil.

Booth 57—The Sanka Coffee Corporation will demonstrate a coffee from which at least 97 per cent of the Caffein has been removed, with-

out affecting the flavor or aroma and will show the various stages through which the coffee passes during the extraction process

Professor Dr M Mendelsohn, a specialist in the diseases of the heart, has written a very interesting article concerning the contra indications of caffeine, which will be distributed

Booth 6—The Abbott Laboratories will display a line of pharmaceutical preparations which

have been passed by the Council of the American Medical Association

Hear the story of Neonol, Neocinchophen, Butesin Picrate Ointment and Butyn

Take note of Metaphen, the non-staining, non-corrosive, organic mercurial, with marked bactericidal properties along with Arsphenamine, Neosarsphenamine, Sulpharsphenamine and Potassium Bismuth Tartrate

PHARMACEUTICALS

Booth 30—The Hoffman-LaRoche Chemical Works will exhibit well known remedies such as Digalen, Pantopon and Thiocol Syrup "Roche," and will in all probability feature a new and very useful "Roche" specialty at this meeting. The company's decision to have a booth at the 1926 and subsequent meetings has been reached, as they write in a recent letter, through the recognition of the constantly increasing importance of the annual meetings of the New York State Medical Society

A group of men from the staff of the Scientific Department will be in attendance and will explain the action of the products

Booth 25—Hynson, Westcott & Dunning will feature mercurochrome. Comprehensive information in regard to this germicide will be available, as will data on the other pharmaceutical specialties of this firm and on their diagnostic apparatus and agents

Booth 44—The Laboratory Products Company will exhibit its products, including S M A which is made by permission of the Babers and Children's Hospital of Cleveland where it was developed. It contains S M A fat which is like breast milk fat and it also has a low content of low volatile fatty acids. It also contains cod liver oil to make it anti-rachitic and anti-spasmodic

Booth 35—H. A Metz Laboratories, Inc., will display the Metz line of dependable original products

The feature of the display will be the assemblage of the latest information relative to these products and concerning their use, technique of preparation and administration, etc. Those in attendance will be glad of the opportunity to disseminate this information and to discuss any particulars pertinent thereto

Surgeons will be interested in the specially prepared sterile Novocain Crystals in hermetically sealed ampules for spinal anesthesia and other forms of Novocain and Novocain-Suprarenin, meeting their every need

Salvarsan Neosalvarsan, Silver-Salvarsan, Sulpharsphenamine, Anesthesin, Novocain, Albargin, Orthoform, Pyramidon and Suprarenin will be among the products exhibited

Booth 37—The Mutual Pharmacal Company, Inc., Syracuse, N. Y., will exhibit some of the products of its laboratory. It manufactures a general line of pharmaceuticals for physicians use. A complete and up-to-date analytical department is maintained to assay and standardize the products of the manufacturing departments

SUPPLIES FOR PHYSICIANS AND HOSPITALS

Booth 19—The Allison line of furniture represents more than a generation of designing and manufacture. The tendency of modern times in all departments of life is to eliminate as far as possible everything ugly, suggestive and unharmonious. As a meeting place for the sick and afflicted the physician's office should be cheerful and attractive. Suggestion whether consciously or unconsciously employed has a potent influence in securing for the practitioner that confidence from patient so necessary to the maintenance and upbuilding of a successful practice. The office equipped with Allison furniture suggests confidence and efficiency to the patient

Booth 16—The Anglo-French Drug Company of New York is the manufacturer and sole distributor of the Labat Outfit for producing

local anesthesia in accordance with Dr Labat's book on Regional Anesthesia

The Outfit for general surgery consists of six various size needles, one 10c bayonet lock syringe, one 2cc glass syringe, sterilizing tray and case. The outfit for eye, ear, nose and throat surgery has various attachments for doing surgery of the head and face (eye, ear, nose, throat, plastic, dental and oral surgery). It is also supplied with a sterilizing tray and case. These two outfits can be seen at our exhibit space

Booths 20-21—Becton, Dickinson & Company will show its lines of diagnostic and therapeutic apparatus, including the Luer B-D Syringes, Yale Quality Needles, Thermometers, Asepto Syringes, Ace Bandages, Leather Goods, Sphygmomanometers, Spirometers and

Stethoscopes The company has developed certain new items which are of interest to the profession in general and will demonstrate them in the booths

Booth 62—Frank S. Betz Company will exhibit its well-known line of medical and surgical supplies and office equipment. The company invites the doctors to call at its New York branch, at 6 West 48th Street, where a complete stock of supplies is carried. Orders will be delivered free in the Metropolitan district.

Booth 7—The Cambridge Instrument Company will exhibit two models of the Hindle Electrocardiograph, now widely used for clinical diagnosis of heart cases.

The Number Two Model, which is generally used in hospitals and medical colleges, will be exhibited as well as the Number Three Model, a compact equipment, designed for use of private practitioners.

The physicians of New York State have played a prominent part in the practical development of electro-cardiography, and there are at the present time 95 instruments in use in New York State alone about one-fifth of the total number installed in the entire country.

The exhibit will also include the McKenzie-Lewis Polygraph, Alveolar Air Indicator, Microtomes and other Cambridge Physiological Instruments.

Booth 64—The C. P. Chemical & Drug Company, of 114 Liberty Street, New York, N. Y., have an exhibit of the Landecker-Steinberg Non-Burning Ultra Sun Lamp. It is a carbon arc lamp utilizing electrodes specially impregnated so as to emit a continuous spectrum of ultra violet rays between 2,900 and 4,000 angstrom units. These rays are the biologically constructive rays identical with the natural noon-day sunlight obtained at high altitudes. Practically no destructive or short-wave rays are emitted. The lamp requires no cooling equipment and is mechanically foolproof. It is mobile and is equipped with a globular, highly polished nickel reflector, which concentrates the beneficial rays emitted and reflects them in such a manner as to obtain the maximum efficiency.

Booth 50—DeVilbiss Sprays, for office use and prescription purposes will be on display in Space No. 50 at the Annual Meeting in New York.

Booth 40—The Foregger Company, Inc., manufacturers of the Gwathmey Anesthesia Apparatus, will exhibit its Universal Metric Gas Machine.

This machine, made in three different models, accurately measures the flow of seven different gases, Nitrous Oxide, Ethylene, Propylene, Nitrogen, Acetylene (Narcylene), Oxygen and Carbon Dioxide.

The flow meters of the Metric Gas Machine are water gauges, calibrated for above gases, according to requirement, in c.c.s. per minute or liters per minute.

Research workers, who have been unable to compare results on account of the inaccuracy of "percentage indicators" will appreciate the advantages offered in this new Metric Gas Machine.

Booths 17-39—The Harold Surgical Corporation is again exhibiting to its friends of the New York State Medical Society, its line of surgical supplies, instruments, furniture, electrical therapeutic apparatus, sterilizers and other items of medical equipment.

The Harold Surgical Corporation is sensitive to the ever-increasing demands for new therapeutic aids made by the profession, and is meeting these demands as quickly as possible with only the highest grade products from the best known sources.

The Harold Surgical Corporation has rearranged its organization so that 24 hour service is now being given. The company is aiming to enable the doctor to secure all of his merchandise from a single source, and to get the highest grade of instruments and supplies in the shortest possible space of time.

The company extends a hearty welcome to all its friends and it includes amongst its friends all the members of the New York State Medical Society.

The exhibit will include all the supplies that are listed in their catalogue, together with a number of recent additions which have not yet been listed.

Booth 10—The Hanovia Chemical & Mfg. Co., of Newark, New Jersey, will exhibit its standard Quartz Lamps, the *Alpine Sun Kromayer* and *Luvor*, together with the radiant heat lamp, the *Sollux*, both types, the Floor Stand and Desk model.

It will also exhibit a new Upright Portable Unit, which has a self-contained water system for the *Kromayer Lamp*, and also a Combination Unit, with the *Alpine Sun Lamp* attached, a highly practical instrument, having a very wide scope of operation.

Booth 71—Hospital Supply Company and The Watters Laboratories are demonstrating three articles of particular interest to the orthopaedic surgeons. They are giving a practical demonstration of Dr. Moorhead's new Electric Bone Operating Set which presents extremely novel features. A new Plaster Paris Bandage Roller by Dr. Edgar Oppenheimer is being exhibited for the first time. They are also showing a reasonably priced, very efficient and compact modern sterilizing outfit for doctors' offices. Their new Orthopaedic and Fracture Table eliminates many disadvantages of previous tables and includes some additional features. They are

also showing a complete line of Stainless Steel Surgical Instruments

Booth 9—E. B. Meyrowitz Surgical Instrument Co., Inc., will show the new Meyrowitz Trial Frame, Giant Ophthalmoscope and Retinoscope, Morton Perimeter, set of Bell's Eye Specula and new Jamisons Advancement Forceps. There will also be on display the Alexander Ear Syringe, Hajek-Kofler Sphenoid Punch, Hasslinger's Directoscope and Callahans Haemostat.

Of interest to the general practitioner will be the Wolf Mouth Gag, Braun's Snaretome, Sonderman Suction Outfit and Berger Loupe.

A special attraction will be the Wellsworth Ophthalmic Chair Unit and Imperatori Outfit.

Booth 3—V. Mueller & Co will exhibit its specialties in the instrument line, including the Lancaster Eye Magnet, the Shahan Ophthalmic Operating Light, Mastoid, Autrum and Sinus instruments, and the Kelley Direct Vision Adenotome. The exhibit will be in charge of Henry G. Herold, eastern agent.

Booth 70—Multiplex Display Fixture Company, New York, (Gen Off.) St Louis, Chicago, exhibits a Lantern Slide Cabinet giving slides protection from dust, damage and theft, and at the same time keeping the slides conveniently accessible.

The cabinets are equipped with all-steel slide racks, or frames, which hold the slides in vertical position. Each slide rack holds 56 slides, which are securely held in place between metal channels, yet any slide may be instantly lifted out of the frame and as readily replaced.

It also manufactures a large line of swinging fixtures for display and visualization of printed matter charts, etc. These fixtures used for classroom, lecture work, exhibit and convention displays.

Booth 31—Pfeau's American Instrument Co., New York, will exhibit a full line of new anatomical specimens and teaching material, as well as the latest, ear, nose and throat instruments and specialties for plastic surgery and nasal correction. Special features are Set of specimens showing Dr Halle's various sinus operations,

Lined nose specimen especially prepared for teaching and demonstrating,

Seibert's latest Directoscope,

Joseph's nasoplastic instruments,

Maltz' new Rhinoplastic instrument set,

Brandenburg's instruments for bloodless nasal correction, etc.

Booth 34—The Prometheus Electric Corporation will demonstrate its new line of low-priced autoclaves which are attracting attention because of their efficiency and rapid operation. Cabinet models will be displayed showing this pressure sterilizer in combination with various water and instrument sterilizers.

Booths 28-29—C. M. Sorensen Co., Inc., Long Island City, New York.

The principal feature of this exhibit is the Company's new equipment for nose and throat work, called the "De Luxe." It consists of an eight-drawer steel cabinet, with compartment containing separate pumps for pressure and for suction, each pump having its own electric motor. A variety of pressure appliances are grouped at one side of the cabinet, the suction appliances at the other, supplies and medicines in jars and bottles, also a waste receptacle. Pressure and suction each has its own panel, containing complete controls. The center panel carries controls for the transilluminator, diagnostic lamp, and cautery.

Booth 63—The Spencer Lens Company will exhibit a complete line of precision optical instruments of interest to the Medical Profession.

Among other things there will be shown the latest developments in a Research Mon-Objective Binocular Microscope, the standard Laboratory Microscopes, New Universal Low Power Binocular Microscope, Portable Microscopes, complete equipment for dark field work with the microscope, Clinical Microtome, Colorimeter, and a new method of stereopticon projection using standard motion picture film in place of lantern slides.

The Spencer Lens Company representatives will be pleased to demonstrate or explain any instruments in which you have an interest.

Booth 14—George Tiemann & Co will show late model instruments including the Barton and Bailey-Williamson Obstetric forceps, the Lilienthal Rib Guillotine, the Unger Transfusion apparatus and the Pfarre two-way syringe, also various patterns of instruments made of rustless steel. It will include diagnostic instruments and various appliances used in treatment of syphilis. Such items as may not be available at our Booth can be quickly obtained from our store.

The Post Electric Cautery will be on display at our Booth No 14. It embodies the following features: used on either alternating or direct current without rheostat or transformer, solid silver tips of assorted patterns, produces uniform correct temperature, is light and portable but sturdy in construction, tips designed for uterine, hemorrhoid, sarcoma and nose and throat conditions.

Booth 27—Carl Zeiss, Jena, U. S. Agency, is exhibiting an assortment of its celebrated, high-grade optical instruments including Monocular and Binocular Microscopes of latest design Photomicro Camera Phoku, Gullstrand Ophthalmoscope and Refractometer, Demonstration or Poly-Laryngoscope, Dipping Refractometer for serum work, Hand Spectroscopes, Cystoscopes and Electro-Medical Instruments, Hess Operating Lamp, Magnifiers, etc.

Competent demonstrations of any instrument shown will be gladly given by those in attendance.

Stethoscopes The company has developed certain new items which are of interest to the profession in general and will demonstrate them in the booths

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Booths 17-39—The Harold Surgical Corporation is again exhibiting to its friends of the New York State Medical Society, its line of surgical supplies, instruments, furniture, electrical therapeutic apparatus, sterilizers and other items of medical equipment.

The Harold Surgical Corporation is sensitive to the ever-increasing demands for new therapeutic aids made by the profession, and is meeting these demands as quickly as possible with only the highest grade products from the best known sources.

The Harold Surgical Corporation has rearranged its organization so that 24 hour service is now being given. The company is aiming to enable the doctor to secure all of his merchandise from a single source, and to get the highest grade of instruments and supplies in the shortest possible space of time.

The company extends a hearty welcome to all its friends and it includes amongst its friends all the members of the New York State Medical Society.

The exhibit will include all the supplies that are listed in their catalogue, together with a number of recent additions which have not yet been listed.

Booth 10—The Hanovia Chemical & Mfg Co., of Newark, New Jersey, will exhibit its standard Quartz Lamps, the *Alpine Sun Kromayer* and *Luvor*, together with the radiant heat lamp, the *Sollux*, both types, the Floor Stand and Desk model.

It will also exhibit a new Upright Portable Unit, which has a self-contained water system for the *Kromayer Lamp*, and also a Combination Unit, with the *Alpine Sun Lamp* attached, a highly practical instrument, having a very wide scope of operation.

Booth 71—Hospital Supply Company and The Watters Laboratories are demonstrating three articles of particular interest to the orthopaedic surgeons. They are giving a practical demonstration of Dr. Moorhead's new Electric Bone Operating Set which presents extremely novel features. A new Plaster Paris Bandage Roller by Dr. Edgar Oppenheimer is being exhibited for the first time. They are also showing a reasonably priced, very efficient and compact modern sterilizing outfit for doctors' offices. Their new Orthopaedic and Fracture Table eliminates many disadvantages of previous tables and includes some additional features. They are

also showing a complete line of Stainless Steel Surgical Instruments

Booth 9—E. B. Meyrowitz Surgical Instrument Co., Inc., will show the new Meyrowitz Trial Frame, Giant Ophthalmoscope and Retinoscope, Morton Perimeter, set of Bell's Eye Specula and new Jamisons Advancement Forceps. There will also be on display the Alexander Ear Syringe, Hajek-Kofler Sphenoid Punch, Hasslinger's Directoscope and Callahans Haemostat.

Of interest to the general practitioner will be the Wolf Mouth Gag, Braun's Snaretome, Sondernan Suction Outfit and Berger Loupe.

A special attraction will be the Wellsworth Ophthalmic Chair Unit and Imperator Outfit.

Booth 3—V. Mueller & Co will exhibit its specialties in the instrument line, including the Lancaster Eye Magnet, the Shahan Ophthalmic Operating Light, Mastoid, Autrum and Sinus instruments, and the Kelley Direct Vision Adenotome. The exhibit will be in charge of Henry G. Herold, eastern agent.

Booth 70—Multiplex Display Fixture Company, New York, (Gen Off) St Louis, Chicago, exhibits a Lantern Slide Cabinet giving slides protection from dust, damage and theft, and at the same time keeping the slides conveniently accessible.

The cabinets are equipped with all-steel slide racks, or trannies, which hold the slides in vertical position. Each slide rack holds 56 slides, which are securely held in place between metal channels, yet any slide may be instantly lifted out of the frame and as readily replaced.

It also manufactures a large line of swinging fixtures for display and visualization of printed matter charts, etc. These fixtures used for classroom, lecture work, exhibit and convention displays.

Booth 31—Pfeau's American Instrument Co, New York, will exhibit a full line of new anatomical specimens and teaching material, as well as the latest, ear, nose and throat instruments and specialties for plastic surgery and nasal correction. Special features are Set of specimens showing Dr Halle's various sinus operations,

Tanned nose specimen especially prepared for teaching and demonstrating,

Seiffert's latest Directoscope,

Joseph's nasoplastic instruments,

Maltz' new Rhinoplastic instrument set,

Brandenburg's instruments for bloodless nasal correction, etc.

Booth 34—The Prometheus Electric Corporation will demonstrate its new line of low-priced autoclaves which are attracting attention because of their efficiency and rapid operation. Cabinet models will be displayed showing this pressure sterilizer in combination with various water and instrument sterilizers.

Booths 28-29—C. M. Sorensen Co, Inc., Long Island City, New York.

The principal feature of this exhibit is the Company's new equipment for nose and throat work, called the "De Luxe." It consists of an eight-drawer steel cabinet, with compartment containing separate pumps for pressure and for suction, each pump having its own electric motor. A variety of pressure appliances are grouped at one side of the cabinet, the suction appliances at the other, supplies and medicines in jars and bottles, also a waste receptacle. Pressure and suction each has its own panel, containing complete controls. The center panel carries controls for the transilluminator, diagnostic lamp, and cautery.

Booth 63—The Spencer Lens Company will exhibit a complete line of precision optical instruments of interest to the Medical Profession.

Among other things there will be shown the latest developments in a Research Mon-Objective Binocular Microscope, the standard Laboratory Microscopes, New Universal Low Power Binocular Microscope, Portable Microscopes, complete equipment for dark field work with the microscope, Clinical Microtome, Colorimeter, and a new method of stereopticon projection using standard motion picture film in place of lantern slides.

The Spencer Lens Company representatives will be pleased to demonstrate or explain any instruments in which you have an interest.

Booth 14—George Tiemann & Co. will show late model instruments including the Barton and Bailey-Williamson Obstetric forceps, the Lihenthal Rib Guillotine, the Unger Transfusion apparatus and the Pfarre two-way syringe, also various patterns of instruments made of rustless steel. It will include diagnostic instruments and various appliances used in treatment of syphilis. Such items as may not be available at our Booth can be quickly obtained from our store.

The Post Electric Cautery will be on display at our Booth No 14. It embodies the following features: used on either alternating or direct current without rheostat or transformer, solid silver tips of assorted patterns, produces uniform correct temperature, is light and portable but sturdy in construction, tips designed for uterine, hemorrhoid, sarcoma and nose and throat conditions.

Booth 27—Carl Zeiss, Jena, U. S. Agency, is exhibiting an assortment of its celebrated, high-grade optical instruments including Monocular and Binocular Microscopes of latest design Photomicro Camera Phoku, Gullstrand Ophthalmoscope and Refractionometer, Demonstration or Poly-Laryngoscope, Dipping Refractometer for serum work, Hand Spectroscopes, Cystoscopes and Electro-Medical Instruments, Hess Operating Lamp, Magnifiers, etc.

Competent demonstrations of any instrument shown will be gladly given by those in attendance.



NEWS NOTES



THE SARATOGA SPRINGS STATE PARK

Editor, New York State Journal of Medicine

The Saratoga Springs Medical Society is taking an active interest in the development of the mineral springs in the State Park in order to make them available for popular use, both internally and externally. Believing that physicians generally are not well informed regarding the Springs and the plans for their development, I am instructed by the members of the Medical Society to request you to publish this letter of information.

Far back in the early ages of geologic time, a cataclysm occurred in the Saratoga rocks which produced a crack or fault running northeast and southwest. The rocks on the westerly side of the fault were displaced upward for a vertical distance of approximately two hundred and fifty feet, and a rift, hundreds of feet in depth, was left up which the underground waters bubble as from an artesian well. As the water flows through the limestone strata, which is the predominating rock formation, they dissolve the lime, soda, iron, sulphur and other minerals and become charged with carbon dioxide and other gases and finally appear on the surface as mineral springs. Borings have revealed mineral waters at a depth of over seven hundred feet.

The value of the Saratoga mineral waters was first made known to the white race by the Indians in 1767 and from that time on to the end of the 19th century the waters of Saratoga enjoyed an ever increasing popularity with the people seeking health. The reputation of the mineral waters became world-wide and Saratoga reached the height of its popularity as a health and fashion resort about the middle of the 19th century. People from all over the United States and some foreign countries came to Saratoga to drink the health-giving waters and enjoy the rest afforded by the pleasant surroundings. But little or no attention was paid to the use of the waters for bathing purposes, no attempt having been made save in a very crude way to develop this part of the cure system.

Immediately following the year 1900, the private exploitation of the highly carbonated mineral waters for their carbonic acid gas, and wasting the mineral waters were continued. In 1909, a law was passed by the Legislature of the State of New York creating the Reservation at Saratoga Springs and a commission to administer it.

During their tenure of office the Commissioners appropriated for the State over 150 mineral springs and wells and about 350 acres of land. They divided the land purchased into three dis-

tinctive parks—High Rock, Lincoln and Geyser—and with the means at their command laid out a general scheme of park development. The Commission caused to be made by its engineers and chemists a thorough investigation of the various mineral springs acquired, and assembled a great mass of valuable data pertaining to the mineral water area throughout the Saratoga quadrangle. Lack of appropriations prevented the Commissioners from carrying into effect many of the plans they had in mind for the development of the Reservation properties.

In 1916, the State decided to adopt a new policy and turned the State Reservation at Saratoga Springs over to the Conservation Commission, which proceeded to execute this plan with all possible dispatch. This plan embodied the development of the several parks and providing attractive walks and drives on the Reservation. Well designed structures were provided at the more important springs where people could obtain the mineral waters at the fountain head in a natural state.

The Commission also turned its attention to the development and use of the waters for bathing purposes. It realized that no health resort, based upon the use of mineral waters, could be complete which did not provide for the administration of the mineral waters externally as well as internally. The bath houses on the Reservation, three in number, were found to be unsuitable for scientific work and after investigation and considerable research work, the Commission made a complete rearrangement of its bath establishments. Today, the State in its Lincoln Park has two modern bath houses, with the most complete equipment for the administration of carbonated mineral baths and the giving of other forms of hydrotherapeutic treatments.

The Lincoln Bath House contains 147 solid porcelain tubs, adequate dressing and rest rooms, and a well equipped hydrotherapy treatment. It is particularly well arranged to serve the great number of people of moderate means who patronize it during the cure season.

The Washington Bath House is designed for a somewhat higher class of patronage. It provides for the convenience and comfort of its patrons and for the administration of the treatments in a most scientific manner. The dressing room facilities are ample and the quiet rest rooms are divided into alcoves which contain two or three couches, so that the maximum of privacy is secured. At the end of each of these wings is a section given over to private suites.

comprising a bath room, dressing room and rest room, where those desiring it may obtain absolute privacy during their treatment and rest period.

In both the Lincoln and Washington Bath Houses the latest forms of hydrotherapeutic treatment may be obtained. Here are given electric cabinets, neurovascular or eliminating treatments, packs, douches, formentations, and colon irrigations, as well as all forms of massage. However, the one point in which the State's bath houses differ from any others on the American continent is in the giving of the mineral baths with naturally carbonated and naturally mineralized waters. The waters of the Lincoln tract are used in the bath houses for this purpose and are collected and stored by means of a specially designed and constructed system so that the supply of water for the baths shall at all times be ample and be highly carbonated with its own gas. This water is conveyed to the porcelain tubs in the bath houses and there heated to the proper temperature. The temperature and gas content of the bath as administered is closely controlled and carefully regulated by a skilled attendant so that the patient and his physician may be assured that the treatment is given as prescribed.

All of these facilities are set in the midst of six acres of well kept lawns, dotted with shrubbery and intersected by paths and drives for the convenience and pleasure of the patrons, and the whole tract is backed by a luxurious growth of pines and other evergreen trees, making in all a delightfully pleasant place in which to recover one's health and vigor.

To serve the small number of patients who apply for treatment during the winter months, a small and compact bath house has been installed in one of the State owned buildings in the City of Saratoga Springs. This department is a miniature of the larger bath houses just described. Here can be obtained the genuine carbonated mineral water baths with the same water as is used during the summer months at the Lincoln and Washington Bath Houses. Here, also, are electric light cabinets, colonic apparatus, and all necessary equipment to give every form of hydrotherapeutic treatment. A mechanotherapy department has also been installed in this bath house in charge of a competent attendant.

The combined capacity of the bath houses operated by the State at Saratoga Springs equals 2,200 treatments per day, and with the additions which are anticipated during the coming year this maximum capacity will be increased to approximately 4,000 treatments daily.

With the completion of the work in Lincoln Park, the State will have complete the first step as outlined in its plan for the development of

the Reservation. The Commission thought that the great mass of people of moderate means should be the first care of the State and to that end has devoted its efforts up to the present time.

The next step in the State's plan will be the development on its property in the City of a modern well equipped bath house combined with a drink hall or Kur-haus, and the parking of the property surrounding it. This development will serve a class of people entirely distinct from that which now patronize the Washington and Lincoln Baths. The style of architecture will be more elaborate and the interior appointments and equipment for the administration of the treatments and for caring for the patients more luxurious. The bath establishment will be so arranged that it will serve winter as well as summer patients, and will contain the administrative offices of the Division.

It is expected that complete plans, specifications and estimates will be made for this development this year and the money appropriated for the carrying on of the work in 1927. During the year 1927 plans will be made for the next and *last step* in the development, which will be the erection of a combined hotel and sanitarium directly connected to a magnificent bath house, located in Geyser Park on the plateau overlooking the Vale of Springs.

Geyser Park will be landscaped and provisions made for all forms of winter sports—skiing, snow shoeing, tobogganing and skating. Funds to carry on these last two steps of the program are to come from the 100 million dollar bond issue recently approved by the people, and should be made available to start this work in the year 1928 which, when completed, will bring to its conclusion the development of the State's health resort at Saratoga Springs.

When the plans are carried out as outlined, the combined facilities of the three steps of the development—Lincoln, Saratoga City and Geyser—will enable the State to take care of from five to six thousand patients daily and make Saratoga Springs the largest cure center in the United States and the equal of any in Europe.

The local Medical Society already has a Committee that is acting in an advisory capacity to the State authorities who have charge of the Park. The local physicians are deeply interested in the development of the Springs and it is their hope and expectation to see them developed in a manner that is both scientific and ethical.

(Signed) E. H. KING,
President, Medical Society
of the County of Saratoga,

CARL R. COMSTOCK,
President Medical Society of Saratoga Springs

WOMEN'S MEDICAL SOCIETY OF NEW YORK STATE, INC

The annual meeting of the Women's Medical Society of New York State, Inc, will be held on Monday, March 29, in the Hotel McAlpin, 34th Street and Sixth Avenue, New York

It is the custom of this society to meet during the sessions of the Medical Society of the State of New York, and there is a spirit of friendly cooperation between the two organizations and their memberships overlap

The society will hold a session in the morning, and the members will be guests of the Women's Medical Association of New York City in a sightseeing tour to medical centers in the early afternoon

A reception will be given in the Hotel McAlpin at 4 P M by Dr Rosalie S Morton, and a banquet will be held in the evening, with Dr Elizabeth B Thelberg as toast-mistress

Tickets for the banquet, \$4 00, may be obtained from Dr Harriet F Coffin, 426 East 26th St, New York City

Program of the morning session is as follows

Hotel McAlpin, 9 30 A M

Invocation, Eliza M Mosher, M D

Report of Secretary, Anna Harvey Voorhis, M D

Report of Treasurer, Harriet F Coffin, M D

Reports of Committees Scientific Program, Marie L Chard, M D, Chairman, Legislation, Florence A Sherman, M D, Public Health,

Josephine Bicknell Neal, M D, Medical Education, Mary T Greene, M D, Arrangements, Mary Dunning Rose, M D, Arrangements Women's Medical Association of New York City, Frances Cohen, M D

SCIENTIFIC PROGRAM

Immunization against Diphtheria and Scarlet Fever, Mary J Kazmierczak, M D Discussion opened by Louise M Beamis, M D, and May Salona Holmes, M D (by invitation)

The Technique and Effect of Radium Treatment on Cancer of the Cervix (lantern slides), Lillian K P Farrar, M D Discussion opened by Elsie S L'Esperance, M D, and Leila C Knox, M D (by invitation)

Cysts of the Breast (lantern slides), Elsie S L'Esperance, M D Discussion opened by Lillian K P Farrar, M D

Diabetes, Its Types and Treatment, Agnes Brown, M D Discussion opened by Emily Levi, M D

Basal Metabolism, Its Determination and Clinical Value, Connie Guion, M D Discussion opened by Margaret E Fries, M D

Management of Transverse Presentation, Georgia Reid, M D Discussion opened by Caroline Finley, M D

Election of Officers
Luncheon

TRI-STATE CONFERENCE

The Second Conference of the representatives of the Medical Societies of New York, New Jersey and Pennsylvania was held on the afternoon of February 26th, in the New York Academy of Medicine. The presidents, secretaries and editors of the three societies were present, and the total attendance was fourteen. Dr Van Etten, President of the New York State Society, presided and led a symposium on the leading topics which were under consideration by his society. The discussion developed the fact that the same problems confronted the medical societies in the three states, and that they had been solved with varying degrees of success. While each state excelled the others in certain activities, no one led the rest in all. While New York, for example, had an excellent record in graduate education, the other two states excelled in medical defense.

The group assembled was so small that the discussions could be largely informal, and the participants were so well versed in the affairs of their own societies that they were ready with their data and could show that their opinions were based on facts.

Graduate education was the first topic to be dis-

cussed. Dr C A Gordon, Chairman of the Committee on Public Health and Medical Education, told how New York had developed a series of lectures and demonstrations on common, practical topics, especially in pediatrics and obstetrics, in cooperation with the State Department of Health. He had dealt directly with the county medical societies who had permitted all their members to attend the lectures without charge. This Committee had also stimulated the county societies to put on practical programs at their regular meetings, and to hold extra meetings to carry out programs on the art of practicing medicine.

The representatives of Pennsylvania reported activities in graduate education along totally different lines. Their Society had worked with the medical schools who had detailed teachers to go to central hospitals and hold series of clinics and demonstrations for the benefit of doctors who would enroll for the courses and pay the fees which were required. New Jersey followed Pennsylvania's plan.

The relation of the State Medical Society to the use of toxin-antitoxin for diphtheria prevention was the second topic that was discussed.

The health forces of New York State were combined in a campaign to secure its application to all children. Dr. Gordon outlined a plan by which the county medical societies should take up the question and develop a plan for educating their members to give the immunizations in their private practices. Dr. Alec N. Thomson, Secretary of the Public Health Committee of the Medical Society of the County of Kings, described his recent visit to Buffalo where the Erie County Society devoted an evening to devising means by which the Society could promote the immunizations, especially in stimulating physicians to give them in their private practices.

In Pennsylvania the most widespread use of toxin-antitoxin had been in those counties which had a full-time health officer.

Periodic Health Examinations was the third topic to be discussed. The reports from New York State were that the method of making the examinations had been perfected and systematized, and the next step is that the county societies shall stimulate their members to make the examinations.

The Medical Society of the State of Pennsylvania had adopted the plan of Kings County and had made examinations of the doctors at the meeting, as a demonstration of the methods. A

large proportion of the doctors examined were found to have serious defects. The County Medical Society of Philadelphia has set aside a room of its new home for demonstrations of periodic examinations, and will stress them during the National Exhibition this Summer.

Defense in Malpractice Suits was the fourth and last topic to be discussed. New Jersey has group insurance and indemnity for \$16 per \$10,000 insurance while the same policy costs \$32 in New York. But New Jersey has only four suits per 1,000 doctors annually, while New York has four times as many.

Pennsylvania has no group insurance plan, but the State Society has a fund to supply counsel for the defense of the insured members. Yet the cost of the insurance was less than one dollar per member. Very few lay suits were brought against doctors because their colleagues were always ready to go to court in their defense. The conference voted unanimously in favor of the principle of defense in malpractice suits, but made no decision regarding the method of the defense.

Every moment of the conference was practical and full of interest. The next one will be held in Philadelphia at the call of the leaders of the Pennsylvania Society.

PLAN FOR CHILDREN'S CONSULTATION CLINICS

Adopted by the Medical Society of the County of Montgomery

Places—Hagaman (20), St. Johnsville (40), Ft. Plain (40), Canajoharie (40), Palatine Bridge (20), Fonda (20), Fultonville (20), Ft. Johnson (20), Minerva (20), Rural Grove (20), Nelliston (20), Tribes Hill (20), Ft. Hunter (20), Cranesville (20). Numbers indicate children probably available—20 per examiner per day.

Type of Clinic—No cases under care of a physician to be examined, except by request of the attending physician. Children from age of 6 months until entrance to school.

Examination—Follow plan indicated on standard blank furnished by Child Welfare Division.

Clinic Hours—10-12 a.m., 1:30-4:30 p.m.

Compensation of Examiners—To be paid from local health budget, aided by a contribution from Child Welfare Division.

Equipment Needed—Stethoscope, Oscope, small bath robes for children, sheets for tables, gowns for examiner, scale and measuring rod, screens, one room for dressing room, quiet room for examiner, heated building when indicated by season, tongue blades, paper towels, wash-basins, soap (bar and liquid).

Examiners—To be designated by P. H. Com-

mittee of the County Medical Society, and assignments to be made by this Committee or a sub-committee of the P. H. Committee. Preferably H. O. and School Medical Inspectors to be selected, if and when authorized to do so by resolution of the County Medical Society.

Nursing Service—P. H., School, and Industrial Nurses to be invited to participate, compensation of Nurses may be necessary in a few instances.

Patients—Children who are apparently and presumably well, for the discovery of remediable defects.

Pledge Cards—To be signed by the family physician. Preliminary distribution by a volunteer committee of local women (preferably those who own and drive cars) with a chairman. Collection of the cards by the same committee and occasional transportation of the children to and from the clinics. Attendance hour to be assigned to each case, both to keep examiner busy and prevent overcrowding.

Ethics—No medical advice to be given, except in rare cases where there is not and has not been a family physician, in which instances the local H. O. will sign the cards. These ex-

annuations are for the discovery of remediable defects, and to cultivate the habit of annual or semi-annual examinations, and in every instance the Mother is to be advised that the corrections are to be guided by her family physician

Reports—Report sent to family physician and copies to H O and P H Nurse

Follow-up Service—Ten days after each local Clinic, P H Nurse with her copy of report to interview each physician, and to visit the family only when requested to do so by him, and when such permission is given, to periodically visit the family and urge the corrections found to be needed. The whole purpose of the Clinics is to bring about remedial activities on the part of parents, and since the family physician manifestly cannot urge these activities personally, the necessity of follow-up work by nurse is self-evident

Follow-up Clinics—It will probably be expedient to have Tonsil Adenoid, Orthopaedic, and similar types of Clinics, as a result of these, and these can be arranged for at places in the County that will be convenient as to times and types

Adjunct to T-1 Campaign—Each examiner should urge every parent to have the children protected by Toxin-antitoxin, at every Clinic. Explain the simplicity, the effectiveness and the freedom from harm of the inoculations, and convince them that this is an ordinary office procedure by every physician *

* Note So far as possible avoid the use of the word "Schick" and use the word "Immunization"

N B—The Health Officers of the County with the District State Health Officer, constitute the Public Health Committee

BULLETIN ON SILICOSIS

A special medical bulletin on the subject of Silicosis, or the infiltration of the lungs with stone dust, has been issued by the New York State Department of Labor. Its introduction states

"Anticipating legislation in the near future with a view to affording compensation to workers in industry suffering from silicosis, this bulletin is submitted for the convenience of those physicians in New York who may be interested

"Silicosis has been the cause of a number of deaths among certain groups of industrial workers, and no doubt has been unrecognized and entered as fibroid phthisis, pulmonary tuberculosis and bronchitis

"In compiling this resume of the literature of silicosis the aim was to make only those references from medical literature in detail which are

likely to be of assistance to the general practitioner

"There seems to be ample evidence that as a result of a careful study of silicosis the number of cases to be so diagnosed will increase"

The bulletin consists of 68 pages, of which 20 contain a well-written description of the condition, its causes, pathology, symptomology and management. The remaining pages are filled with quotations from standard authors

The bulletin is of great value to physicians especially those who deal with tuberculosis and other conditions of the lungs. Any physician may obtain a free copy by addressing Director, Bureau of Industrial Hygiene, New York State Department of Labor, 124 East Twenty-eighth Street, New York City

DR AUGUSTUS WALTER SUITER

A MEMORIAL

Dr Augustus Walter Suiter who died in the Village of Herkimer on May 28, 1925, aged 75 years was above the ordinary both as a physician and a man. Born in Herkimer and living there all his life, he achieved a large degree of respect and fortune. His public spirit is attested by his record service of fifty-one and a half years as Secretary of the Herkimer County Medical Society. He was President of the Medical Society of the State of New York during the year 1891 and for eleven years he was a member of the State Board of Medical Examiners. He was a scholar, a research worker, especially in chemistry, versed in medico-legal lore a wide reader and a man of all round culture. As a business

man he was successful to such an extent that he was able to leave bequests of \$80,000 for public purposes among them \$6,000 to the Medical Society of the State of New York to establish a lectureship, \$6,000 to the New York Academy of Medicine and \$3,000 to the Medical Society of the County of Herkimer. He gave his commodious residence to the Historical Society of the County of Herkimer and directed that one room should be used by the County Medical Society as a permanent headquarters.

After a long and honorable career as a practitioner of medicine, his life service will continue through the years in ever broadening circles of influence.



MEDICAL PROGRAM



OFFICERS FOR 1925-1926

President—Nathan B Van Etten, New York.
Speaker—E. Eliot Harris, New York.
Vice-Speaker—George M Fisher, Utica
First Vice-President—William H. Ross Brentwood.
Second Vice-President—Frederick H. Flaherty, Syracuse.
Secretary—Daniel S Dougherty, New York
Assistant Secretary—Howard Gillespie Myers, New York
Treasurer—Charles Gordon Heyd New York.
Assistant Treasurer—James Pedersen New York

Councillors

First District—John A Card, Poughkeepsie.
Second District—Joseph S Thomas, Flushing
Third District—Charles P McCabe, Greenville.
Fourth District—Horace M Hicks Amsterdam.
Fifth District—Nelson O Brooks Oneida.
Sixth District—George H Fox, Binghamton.
Seventh District—William I Dean, Rochester
Eighth District—Harry R. Trick, Buffalo

Standing Committees

Committee on Public Health and Medical Education
Charles A Gordon, Chairman, Brooklyn, George F Chandler, Kingston E. MacD Stanton, Schenectady, William D Johnson Batavia, Frank D Jennings Brooklyn, Louis A Friedman New York, Herman G Weiskotten, Syracuse, Martin B Tinker, Ithaca, Robert S MacDonald, Plattsburg

Committee on Legislation

Henry L. K. Shaw Chairman Albany, Arthur W Booth Elmira, Clarence F Graham, Albany

Committee on Medical Economics

William W Britt Chairman, Tonawanda, Charles O Boswell Rochester, Henry B Doust, Syracuse, Arthur S Chittenden, Binghamton, Nelson K. Fromm, Albany

Committee on Scientific Work

Andrew MacFarlane Chairman Albany L. Whittington Gorham Albany Edward S Van Duyn, Syracuse Alfred C. Beck, Brooklyn Eugene E. Hinman Albany Roger H Dennett, New York, Clarence O Cheney, Utica, Arthur D Jaques Lynbrook, Samuel J Kopetzky New York.

Committee on Arrangements

Edward R Cuniffe Chairman New York, John E. Jennings, Brooklyn William P Healy New York, Edward W Weber White Plains Simon M Jacobs, New York, Samuel J. Kopetzky New York, Isidore H Goldberger New York Edward C. Podvin New York, Henry Roth New York

Section Officers

Medicine—Chairman, L. Whittington Gorham Albany
Secretary Wardner D Ayer, Syracuse.
Surgery—Chairman Edward S Van Duyn, Syracuse,
Secretary George E. Beilby, Albany
Obstetrics and Gynecology—Chairman, Alfred C. Beck Brooklyn, Secretary, Nathan P Sears, Syracuse.
Pediatrics—Chairman—Roger H. Dennett, New York,
Vice-Chairman, Arthur W Benson, Troy, Secretary, John Aikman Rochester
Eye, Ear Nose and Throat—Chairman, Eugene E. Hinman Albany, Secretary James W White New York

Public Health, Hygiene and Sanitation—Chairman Arthur D Jaques, Lynbrook, Secretary, Leo F Schiff, Plattsburg

Neurology and Psychiatry—Chairman, Clarence O Cheney Utica Secretary, Thomas K. Davis, New York

By-Laws

Section 85 No address or paper before the Society, except those of the President and orators, shall occupy more than twenty minutes in its delivery, and no member shall speak upon any question before the House of Delegates for longer than five minutes nor more than once on any subject, except by the consent of a majority vote.

Sec. 86 All papers read before the Society by its members, shall become the property of the Society. Permission may be given however, by the Council, House of Delegates or the Executive Committee, to publish such paper in advance of its appearance in the *NEW YORK STATE JOURNAL OF MEDICINE*.

Sec. 87 Any distinguished physician of a foreign country or a physician not a resident of this state, who is a member of his own state association, may become a guest during any annual session upon the invitation of the President or officers of the Society, and may be accorded the privilege of participating in all the scientific work of the session

The Medical Society of the State of New York

17 West 43rd Street, New York

March 8, 1926

The regular annual meeting of the Medical Society of the State of New York will be held on Wednesday, March 31 1926, at 8 P M, in the Ballroom of the Waldorf-Astoria, New York

NATHAN B VAN ETTEN, M D, *President*
DANIEL S DOUGHERTY, M D, *Secretary*

March 8, 1926

The regular annual meeting of the House of Delegates of the Medical Society of the State of New York, will be held on Monday, March 29, 1926 at 2 P M, in the Waldorf-Astoria, New York

E ELIOT HARRIS, M D, *Speaker*
DANIEL S DOUGHERTY, M D, *Secretary*

By-Laws

Section 67 Each member in attendance at the annual meeting, special or intermediate stated meetings of the Society, shall enter his name and the name of the component county medical society to which he belongs in a register to be kept by the Secretary of the Society for that purpose. No member shall take part in any of the proceedings of such a meeting until he shall have complied therewith

Sec. 68. All members in good standing so registered may attend and participate in the proceedings and discussions of the general meetings of the Society and of the sections

Sec. 69 The following shall be the order of business at all general meetings of the Society

- 1 Calling the Society to order
- 2 Address of Welcome by the Chairman of the Committee on Arrangements
- 3 Reading the minutes of the last meeting
- 4 President's address
- 5 Special addresses
- 6 Reading and discussion of papers
- 7 Miscellaneous business

Registration

The Bureau of Registration and Information will be located in the Waldorf-Astoria. Only those who have registered will be admitted to the Section Meetings and Meeting of the Society. All desiring information or assistance of any kind should apply to the Bureau.

The Bureau will be open on Tuesday, Wednesday and Thursday

120th ANNUAL MEETING

Ballroom, Waldorf Astoria

Wednesday, March 31st, 8 P M

Calling the Society to order by the President, Nathan B Van Etten, M D

Address of Welcome by the Chairman of the Committee on Arrangements, Edward R Cuniffe, M D

Reading of the minutes of the 119th Annual Meeting by the Secretary, Daniel S Dougherty, M D

President's Address, Nathan B Van Etten, M D

Matthias Nicoll, M D, State Commissioner of Health

Louis I Harris, M D, City Commissioner of Health

William Hallock Park, M D

SCIENTIFIC PROGRAM

ARRANGED BY THE COMMITTEE ON SCIENTIFIC WORK

Andrew MacFarlane, Chairman, Albany

L Whittington Gorham, Albany

Edward S Van Duyn, Syracuse

Alfred C Beck, Brooklyn

Eugene E Hinman, Albany

Roger H Dennett, New York City

Clarence O Cheney, Utica

Arthur D Jaques, Lynbrook

Samuel J Kopetzky, New York City

SECTION ON MEDICINE

Chairman, L Whittington Gorham, M D, Albany, Secretary, Wardner D Ayer, M D, Syracuse Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

"Liver Function Studies," Charles S McVicar, M D, Rochester, Minn (by invitation)

Discussion opened by Howard Shattuck, M D, New York City

"Neuron Block for the Relief of Pain With a Report as to Its Use in Angina Pectoris," George I Swetlow, M D, Brooklyn

Discussion opened by John Wyckoff, M D, New York City

"Basic Factors in Human Hypersensitive ness," Robert A Cooke, M D, and Will C Spain, M D, New York City

Discussion opened by Aaron Brown, M D, New York City

"The Recognition of Chronic Nephritis in its Early Stages, and Consideration of Some Neglected Principles in Functional Diagnosis," Nellis B Foster, M D, New York City

Discussion opened by John A Lichty, M D, Clifton Springs

"The Clinical Result After the Long Continued Use of Insulin," John Ralston Williams, M D, Rochester

Discussion opened by Nelson G Russell, M D, Buffalo

Wednesday, March 31st, 9.30 A.M.

Joint Session with Section on Surgery

"More Recent Studies Upon the Etiology of Post-Operative Pneumonitis," Allen O Whipple, M D, New York City

Discussion opened by William D Johnson, M D, Batavia

"The Experimental Production of Lung Abscess," Elliott Cutler, M D, Simon A Schlueter, M D, I F Weidlein, M D, Cleveland, Ohio (by invitation)

Discussion opened by James M Hitzrot, M D, New York City

"Pulmonary Abscess and Its Treatment" (a) from the Surgical Standpoint, Adrian V S Lambert, M D, New York City, (b) from the Medical Standpoint, James Alex Miller, M D, New York City

Discussion opened by Howard Lilienthal, M D, and John D Kernan, M D, New York City

"Broncho-pulmonary Spirochetosis," David T Smith, M D, Ray Brook (by invitation)

Discussion opened by Edward R Baldwin, M D, Saranac Lake

Immediately following the Session the Section will adjourn for the Election of Officers in accordance with Section 74 of the By-Laws

Wednesday, March 31st, 2 30 P M

Joint Session with Sections on Pediatrics and Neurology and Psychiatry

"The Vegetative Nervous System and Encephalitis with Special Reference to Personality Changes in the Young," Foster Kennedy, M D, New York City

Discussion opened by E D Friedman, M D, New York City

"The Relation of Vitamins to Disease," E V McCollum, M D, Baltimore, Md (by invitation)

"The Vitamin Value of Some Common Foodstuffs," Walter H Eddy, Ph D, New York City (by invitation)

Discussion

"A Survey of Our Present Knowledge of

Tetanus and Its Treatment," Matthias Nicoll, M D, Albany

Discussion opened by John J Moorhead, M D, New York City

Thursday, April 1st

Syphilis Demonstration for program (see page 288)

SECTION ON SURGERY

Chairman, Edward S Van Duyn, M D, Syracuse, Secretary, George E Beilby, M D, Albany Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P.M

Joint Session with Section on Neurology and Psychiatry

"The Principles and Methods of Treatment of Fracture Dislocation of the Neck," Alfred S Taylor, M D, New York City

Discussion opened by Foster Kennedy, M D, New York City

"Ventriculometry (with Lantern slide demonstration)," K. Winfield Ney, M D, New York City

"The Diagnosis and Localization of Brain Tumors" (with lantern slide demonstration), Walter E Dandy, M D, Baltimore, Md (by invitation)

Discussion opened by S Philip Goodhart, M D, and Charles A Elsberg, M D, New York City

"Differential Section of the Trigeminal Root in the Surgical Treatment of Trifacial Neuralgia," Byron Stookey, M D, New York City

Discussion opened by Martin B Tinker, M D, Ithaca and John L Eckel, M D, Buffalo

Wednesday, March 31st, 9.30 A.M

Joint Session with Section of Medicine

"More Recent Studies Upon the Etiology of Post-Operative Pneumonitis," Allen O Whipple, M D, New York City

Discussion opened by William D Johnson, M D, Batavia

"The Experimental Production of Lung Abscess," Elliott Cutler, M D Simon A Schlueter, M D, I F Weidlein, M D, Cleveland, Ohio (by invitation)

Discussion opened by James Morley Hitzrot, M D, New York City

"Pulmonary Abscess and Its Treatment," (a) from the Surgical Standpoint, Adrian V S Lambert, M D, New York City, (b) from the Medical Standpoint, James Alex. Muller M D, New York City

Discussion opened by Howard Lilenthal M D, and John D Kernan, M D, New York City

"Bronchio-Pulmonary Spirochetosis," David T Smith, M D, Ray Brook (by invitation)

Discussion opened by Edward R Baldwin M D, Saranac Lake

Wednesday, March 31st, 2 30 P M

Election of Section Officers in accordance with Section 74 of the By-Laws

"Further Advancement in the Technique and Interpretation of Cholecystography by the Oral Method," William H Stewart, M D, and Eric J Ryan, M D (by invitation), New York City

Discussion opened by Lester Levyn, M D, Buffalo, and Merrill C Sosman, M D, Boston, Mass (by invitation)

"Muscle and Nerve Injuries Associated with Fractures," Dean Lewis, M D, Baltimore, Md (by invitation)

Discussion opened by William Darrach, M D, New York City, and Emil Goetsch, M D, Brooklyn

"Appendicitis in Early Life," Edward W Peterson, M D, New York City

Discussion opened by Richard W Bolling, M D, New York City

"The Clinical Features of Chronic Pancreatitis," J William Hinton, M D, New York City

Discussion opened by Charles G Heyd, M D, and Paul Klemperer, M D, New York City (by invitation)

"Stricture of the Ureter, Its Etiology, Sequelæ and Treatment," Cyril K. Church, M D, New York City

Discussion opened by Oswald C Lowsley, M D, New York City

Thursday, April 1st

Syphilis Demonstration for program (see page 288)

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman, Alfred C. Beck, M D, Brooklyn Secretary, Nathan P Sears, M D, Syracuse Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

"The Management of Vomiting of Pregnancy," James K Quigley, M D, Rochester

"The Treatment of Eclampsia," Frederick W Rice, M D, New York City

"Prenatal Care," Asa B Davis, M D, New York City

"Fetal and Neonatal Deaths in a Series of Cases at the Lying-In Hospital," Meyer Rosensohn, M D, New York City

"Obstetrical Analgesia," James T Gwathmey, M D, New York City

Wednesday, March 31, 9 30 A.M

"The Use of the Pomeroy Maneuver in the Treatment of Persistent Occipito Posterior Position," Harry Aranow, M D, New York City

"Morbidity in Obstetrics, Its Reduction by Means of a Vaginal Antiseptic During Labor," Harry W Mayes, M D, Brooklyn

"The Treatment of Placenta Previa," Ross McPherson, M D, New York City

"Accidental Hemorrhage," George L. Brodhead, M D, New York City

"Postpartum Hemorrhage," John O. Polak M D, Brooklyn

"The Use of the Barton Forceps," William E. Caldwell, M D, New York City

Wednesday, March 31, 2 30 P M

Election of Section Officers in accordance with Section 74 of the By-Laws

"Supernumerary Ureters with Extravesical Openings," Henry D. Furniss, M D, New York City

"Radium Therapy in Carcinoma of the Cervix," William P. Healy, M D, New York City

"The Treatment of Cancer of the Uterine Body," Harold C. Bailey, M D, New York City

"Cesarean Section by a New Method," Edwin G. Langrock, M D, New York City

"Hysteroplasty (a Preliminary Report)," Salvatore di Palma, M D, New York City

"The Gestational Gland," Robert T. Frank, M D, New York City

Thursday, April 1st

Syphilis Demonstration for program (see page 288)

SECTION ON PEDIATRICS

Chairman, Roger H. Dennett, M D, New York, Vice-Chairman, Arthur W. Benson M D, Troy, Secretary, John Aikman, M D, Rochester Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

Joint Session with Section on Public Health, Hygiene and Sanitation

"The Use of Convalescent Serum in the Treatment of Measles," Richard A. Lawrence, M D, Albany

Discussion opened by Rowland Freeman, Jr, M D, New York

"Etiology of Scarlet Fever," Alphonse R. Dochez, M D, New York (by invitation)

"Prophylactic Treatment of Scarlet Fever," William H. Park, M D, New York

"The Treatment of Scarlet Fever with Scarletinal Antitoxin," Francis G. Blake, M D, New Haven, Conn (by invitation)

"Active Immunization to Scarlet Fever and Demonstration of Cases," Abraham Zingher, M D, New York

Discussion by Franklin A. Stevens, M D, New York (by invitation), and Augustus B. Wadsworth, M D, Albany

Wednesday, March 31st, 9.30 A M

"A Plea for More Rational Management of the Undernourished," Frank vander Bogert, M D, Schenectady

Discussion opened by Charles Gilmour Kerley, M D, Charles Hendee Smith, M D, Louis Clausen Schroeder, M D, Dever S. Byard, M D, New York

"Recent Studies of Gonococcus Vaginitis of Infants," Edward F. Wynkoop, M D, Edgar O. Boggs, M D, (by invitation), Syracuse

Discussion opened by Walter Lester Carr, M D, Philip Van Ingen, M D, New York

"Intra-peritoneal Transfusions of Blood in the Treatment of von Jaksch Anemia," Clifford G. Grulee, M D, Chicago (by invitation)

Discussion opened by Oscar M. Schloss, M D, Marshall Carleton Pease, M D, New York

"The Indication for Ultra-violet Irradiation in Pediatrics," Alfred F. Hess, M D, New York

Discussion opened by Howard Harris Mason, M D, Royal Storrs Haynes, M D, New York

"The Role of Carbo-hydrates in the Feeding of Infants," Linnaeus E. LaFetra, M D, New York

Discussion opened by Bela Schuck, M D, (by invitation), Sidney Valentine Haas, M D, Adolph George DeSanctis, M D, New York

Immediately following the Session the Section will adjourn for the Election of Officers in accordance with Section 74 of the By-Laws

Wednesday, March 31st, 2 30 P M

Joint Session with Sections on Medicine and Neurology and Psychiatry

"The Vegetative Nervous System and Encephalitis with Special Reference to Personality Changes in the Young," Foster Kennedy, M D, New York City

Discussion opened by E. D. Friedman, M D, New York City

"The Relation of Vitamins to Disease," E. V. McCollum, M D, Baltimore (by invitation)

"The Vitamin Value of Some Common Food stuffs," Walter H. Eddy, Ph D, New York City (by invitation)

Discussion

"A Survey of Our Present Knowledge of Tetanus and Its Treatment" Matthias Nicoll M D, Albany

Discussion opened by John J. Moorhead M D, New York

Thursday, April 1st

Syphilis Demonstration for program (see page 288)

SECTION ON NEUROLOGY AND PSYCHIATRY

Chairman, Clarence O. Cheney, M D, Utica Secretary, Thomas K. Davis, M D, New York Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

Joint Session with Section on Surgery

"The Principles and Methods of Treatment of Fracture Dislocation of the Neck," Alfred S. Taylor, M D, New York City

Discussion opened by Foster Kennedy, M D, New York City

Ventriculometry (with Lantern slide demonstration), K. Winfield Ney, M D, New York City

"The Diagnosis and Localization of Brain Tumors" (with lantern slide demonstration), Walter E Dandy, M D, Baltimore, Md (by invitation)

Discussion opened by S Philip Goodhart, M D, and Charles A Eisberg, M D, New York City

"Differential Section of the Trigeminal Root in the Surgical Treatment of Trifacial Neuralgia," Byron Stookey, M D, New York City

Discussion opened by Martin B Tinker, M D, Ithaca, and John L Eckel, M D, Buffalo

Wednesday, March 31st, 9 30 A M

Joint Session with Section on Public Health, Hygiene and Sanitation

"The Child as an Individual," Marion E Kenworthy, M D, New York City

"Mental Health of the School Child," William A Howe, M D, Albany

"The Organization of Mental Hygiene Clinics in the Schools of Schenectady," John E Burke, M D, Schenectady

"Method of Preventing Delinquency," Ralph P Truitt, M D, New York City

Discussion opened by Frankwood E Williams, M D, New York City

Immediately following the Session the Section will adjourn for the Election of Officers in accordance with Section 74 of the By-Laws

Wednesday, March 31st, 2 30 P M

Joint Session with Sections on Medicine and Pediatrics

"The Vegetative Nervous System and Encephalitis with Special Reference to Personality Changes in the Young," Foster Kennedy, M D, New York City

Discussion opened by E D Friedman, M D New York City

"The Relation of Vitamins to Disease," E V McCollum, M D, Baltimore, Md (by invitation)

"The Vitamin Value of Some Common Food-stuffs," Walter H Eddy, Ph D, New York City (by invitation)

Discussion

"A Survey of Our Present Knowledge of Tetanus and Its Treatment," Matthias Nicoll, M D, Albany

Discussion opened by John J Moorhead, M D, New York City

Thursday, April 1st

Syphilis Demonstration for program (see page 288)

SECTION ON EYE, EAR, NOSE AND THROAT

Chairman, Eugene E Hinman, M D, Albany
Secretary, James W White, M D, New York
Place of Meeting, Waldorf-Astoria

Tuesday, March 30, 2 30 P M

"Indications for the Radical Frontal Sinus Operations" (with lantern slides), Richard T Atkins, M D, and George Sloan Dixon, M D, New York City

Discussion opened by Cornelius G Coakley, M D, New York City

"Clinical Applications of the Functional Hearing Tests," Clayton Stewart Nash, M D, Rochester

Discussion opened by Edmund Prince Fowler, M D, New York City

"The Labyrinth Tests as an Aid in the Diagnosis of Syphilis of the Central Nervous System," Ralph Almour, M D, New York City

Discussion opened by John McCoy, M D, New York City

"Some Prevalent Misconceptions Regarding Motor Anomalies and the Validity of the Tests Used in their Diagnosis," Alexander Duane, M D, New York City

Discussion opened by Ellice M Alger, M D, New York City

"The Modern Conception of Cataracts" (with lantern slides), Arthur J Bedell, M D, Albany

Discussion opened by Martin Cohen, M D, New York City

"Systemic Otogenous Infections," Samuel J Kopetzky, M D, New York City

Discussion by Wendell C Phillips, M D, and Daniel S Dougherty, M D, New York City

Wednesday, March 31, 9 30 A.M

"Maxillary and Sphenoidal Sinusitis in Children," William Krieger, M D, Poughkeepsie.

Discussion opened by Harold M Hays, M D, New York City

"Some Unusual Effects in the Use of Cycloplegics," Edward Coleman Ellett, M D, Memphis, Tenn (by invitation)

Discussion opened by Alexander Duane, M D, New York City

Symposium on the Relation of Eye Lesions to the Non-Suppurative Nasal Accessory Sinus Diseases

Roentgenological Findings, Henry K Taylor, M D, New York City,

Ophthalmic Findings, Cyril Barnert, M D, New York City,

Rhinologic Findings and Therapeutics, Mark J Gottlieb, M D, New York City

Discussion opened by Lee M Hurd, M D, and Charles J Imperatori, M D, New York City.

Immediately following the Session the Section will adjourn for the Election of Officers in accordance with Section 74 of the By-Laws

Wednesday, March 31, 2 30 P M

Session to be devoted to special operative clinics and slit lamp demonstrations. The detailed program will be announced at opening session and on general bulletin

Thursday, April 1st

Syphilis Demonstration for program (see this page)

SECTION ON PUBLIC HEALTH, HYGIENE AND SANITATION

Chairman, Arthur D Jaques, M D, Lynbrook
Secretary, Leo F Schiff, M D, Plattsburg
Place of Meeting, Waldorf-Astoria

Tuesday, March 30th, 2 30 P M

Joint Session with Section on Pediatrics

"The Use of Convalescent Serum in the Treatment of Measles," Richard A Lawrence, M D, Albany

Discussion opened by Rowland Freeman, Jr, M D, New York City

"Etiology of Scarlet Fever," Alphonse R Dochez, M D, New York City (by invitation)

"Prophylactic Treatment of Scarlet Fever," William H Park, M.D, New York City

"The Treatment of Scarlet Fever with Scarletinal Antitoxin," Francis G Blake, M D, New Haven, Conn (by invitation)

"Active Immunization to Scarlet Fever and Demonstration of Cases," Abraham Zingher, M D, New York City

Discussion by Franklin A Stevens, M D, New York City (by invitation), and Augustus B Wadsworth, M D, Albany

Wednesday, March 31st, 9 30 A.M

Joint Session with Section on Neurology and Psychiatry

"The Child as an Individual," Marion E Kenworthy, M D, New York City

"Mental Health of the School Child," William A Howe, M D, Albany

"The Organization of Mental Hygiene Clinics in the Schools of Schenectady," John E Burke, M D, Schenectady

"Methods of Preventing Delinquency," Ralph P Truitt, M D, New York City

Discussion opened by Frankwood E Williams, M D, New York City

Wednesday, March 31st, 2 30 P M

Election of Section Officers in accordance with Section 74 of the By-Laws

"Periodic Health Examinations," Charles S Prest, M D, Brooklyn

"Health Legislation," Paul B Brooks, M D, Albany

"Lessening the Industrial Cost of Syphilis," Benjamin J Slater, M D, Rochester

"Post Graduate Medical Education, Its Value to Public Health," Frank H Richardson, M D, Brooklyn

"The Establishment of Incinerator Districts," Richard Slee, M D, Rockville Center

Thursday, April 1st

Syphilis Demonstration for program (see this page)

Delegates' Dinner

A dinner for the delegates will be served at the Waldorf-Astoria, on Monday evening, March 29th, following the adjournment of the afternoon session of the House of Delegates Tickets for the dinner will be \$3 00

Annual Banquet

The annual Banquet will be held at the Waldorf-Astoria on Tuesday evening, March 30th, at 8 o'clock Tickets for the dinner will be \$6 00

An interesting program has been arranged Members are urged to bring their wives and to make up tables in advance

Tickets can be secured and arrangements for special parties can be made by applying to the Medical Society of the State of New York, 17 West 43rd Street, New York City

SYPHILIS DEMONSTRATION

Place of Meeting, Hotel Waldorf Astoria

Thursday, April 1st, 10 A M

Local Committee on Exhibit

Health Commissioner Louis I Harris, M.D, Chairman, Walter Brunet, M D, Louis Chargin, M.D, Howard Fox, M D, Joseph Lawrence, M.D, George M. Mackee, M D, Albert Pfeiffer, M D, Alfred Potter, M.D, Hans Schwartz, M D, William F Snow, M D, Alec N Thomson, M D, Fred Wise, M D

Tentative Program for Exhibit

Cutaneous and Mucous Membrane Syphilis

Primary and Secondary Syphilis—

From Syphilis Clinic of Bellevue Hospital
Drs M Parounagian and F Mason.

Tertiary Syphilis—

From City Hospital
Dr Benson Cannon

Syphilitic Scars—

From New York Skin and Cancer Hospital
Dr Dudley D Stetson

Visceral Syphilis

Stomach—

From Mount Sinai Hospital
Drs S Oppenheimer, B Crohn, A Winkelstein and J Marcus.

Cardio Vascular—

From City Hospital
Dr Harlow Brooks

Pulmonary—

From Vanderbilt Clinic.
Dr G Ornstein.

Bone and Joint—

From New York Hospital for Ruptured and Crippled First Surgical Division.
Drs S Klemberg, J Buchman, R. Kahle, P Colonna

Cerebro-Spinal Syphilis

Pathologic Specimens—

From Mount Sinai Hospital.
Drs I Strauss and J Globus

Tabes—

From Mount Sinai Hospital
Drs M Keschner and M Grossman

Paresis—

From New York State Psychiatric Institute.
Drs G H Kirby and A Pollack

Syphilis of Special Organs

Eye—

From New York Post Graduate Hospital
Drs A Tenner and M Troncoso

Ear—

From Beth Israel Hospital
Dr R. Almour

Congenital Syphilis

From Vanderbilt Clinic and Mt Sinai Hospital
Drs I Rosen and H Sherwood.

Early Neuro-Syphilis

From Skin and Cancer Hospital
Drs Randal Hoyt and A MacGregor

Syphilis Therapy

From Department of Health Clinic, City of New York.
Drs L. Chargin and A Stone

Pathology of Syphilis

From Vanderbilt Clinic
Dr D Satenstein.

Syphilis as Demonstrated by Radiograms

From Bellevue Hospital
Dr I S Hirsch

Experimental Syphilis

From Rockefeller Institute.
Drs Wade Brown and Hideyo Noguchi

Serology of Syphilis

The Wassermann Test—
From New York State Laboratory
Dr A. B Wadsworth

The Kahn Test—

From the Michigan State Laboratory
Dr Kahn

Demonstration of Spirocheta Pallida

From the Department of Health Clinic, City of New York.

Drs A. Jacoby, W Seckel and M. Nemser

Lantern Slide Demonstrations of—

Syphilis in the Colored Race

From the New York University

Dr Howard Fox.

Lesion Offering Difficulties in Diagnosis

From Kingston Avenue Hospital

Dr E. D Barringer

Syphilis from the Dental Standpoint

From the New York Dental College.

Dr H Winter

An exhibit of Books dealing with Syphilis, loaned by the New York Academy of Medicine.

Syphilis from the Public Health Standpoint

New York City Department of Health.

State Department of Health.

America Social Hygiene Association

Thursday Afternoon, April 1st

2 00 P M —“What Price Syphilis? William F Snow, M D, New York City

2 15 P M —“Syphilis from the Point of View of the Dermatologist,” Jay F Schamberg, M.D, Philadelphia, Pa (by invitation)

2 30 P M —“Syphilis from the Point of View of the Internist,” Udo J Wile, M.D, Ann Arbor, Mich (by invitation)

2 45 P M —“Syphilis from the Point of View of the Neuro-psychiatrist,” George H Kirby, M D, New York City

3 00 P M —“Syphilis from the Point of View of the Obstetrician,” Alfred C Beck, M D, Brooklyn

3 15 P M —“Syphilis from the Point of View of the Pediatrician,” Isaac A Abt, M D, Chicago, Ill (by invitation)

3 30 P M —“Problems, Methods and Results in the Treatment of Syphilis,” John H Stokes, M D, Philadelphia, Pa (by invitation)



THE DAILY PRESS



MOVING PICTURES IN TEACHING

The movies have a recognized place in education as well as in recreation, but their educational value is comparatively small. Dr Sanger Brown, Chairman of the State Commission on Mental Defectives, is quoted by the New York Herald-Tribune of December 18th as saying:

"Moving pictures are undoubtedly the easiest conceivably manner of registering impressions upon the mind. To sit for hours watching a procession of visual images poured into the brain is the equivalent of bringing up a spoon-fed mind."

The principal appeal of the movies is to the emotions,—and these are of the greatest importance because they are the mainsprings of action. Motion pictures are used to only a limited extent in medical schools, even in teaching surgery. Medical students can learn from an observation of actual operations and demonstrations, and they have no need for the emotional stimulus of the pictures.

The movies have a great value in teaching public health to lay audiences. They help the laymen to visualize clinics and child welfare activities, and see the normal reactions of the sick children and the mothers. They inspire confidence and remove the dread of the unknown that is popularly associated with the ministrations of physicians and nurses. The visualization of happy faces of children strapped to Bradford frames for spinal troubles goes far toward removing from a parent the fear of the "condemnation" of a child to months of inactivity.

This is the effect of movies intelligently directed. But ordinary moving pictures are built around plots of moral abnormalities, and unpleasant situations. The villain is ahead during the greater part of the scene. Even though he is foiled at the end and right at last conquers, his near success constitutes the emphatic part of the play.

The Herald-Tribune article discusses the effect of ordinary movies on morals and, quotes Dr. Brown:

"So far I am thinking of the effect of continual attendance at the 'movies' on the normal mind. When we begin to consider the effect on the abnormal or subnormal mind, the consequences may be far more serious. It seems quite possible that some of the otherwise inexplicable crimes of the mentally weak have been committed as a result of things suggested on the screen. Slap-stick comedies, as well as detective

thrillers featuring the commission of crimes, may have their effect in suggesting similar deeds to the individual unable to discriminate between right and wrong."

"The comedian of the film knocks a man out with a length of lead pipe, and the audience laughs, the weak-minded spectator among them. We could hardly wonder if he went out afterwards and felled his pal with a similar blow, 'just because he had the notion to.' Suggestion is something that must be guarded against in the case of weak-minded citizens, and there can be no stronger suggestion than that of the actual photography of actions of humans shown on the screen."

It is fortunate that the movies have progressed beyond the stage of depicting physical suffering, although they still revel in mental and moral abnormalities, and thereby encourage the weak-minded to commit crimes. One can imagine how a sensitive woman would be affected by the exhibition of sickness and suffering, the hurried preparation of the operating room, the throes of recovery from ether, and the registration of anxiety, even though a last picture should show the patient radiant with recovered health. Few operations would be done if the unpleasant phases of surgical relief were stressed.

EVOLUTION

The New York Sun, February 8th, contains a six-inch Associated Press dispatch concerning a Chicago physician's discovery of a man without an appendix. The "discovery" itself is used featured except in the headlines, but it is not as the text for remarks on the subjects of atavism and degeneracy. The article is taken from an announcement of the Gorgas Memorial Institute, one function of which is to give out medical news in popular form.

The New York Herald-Tribune, February 20th, contains a report of an address in Cornell University, Ithaca, N. Y., by Dr. Henry Fairfield Osborn, President of the American Museum of Natural History, New York City, and one of the foremost scholars in evolution. The summarized account of Dr. Osborn's address is as follows:

"The mathematical and spiritual qualities of man cannot be accounted for by purely evolutionary processes. (Dr. Osborn) also cited the mathematical and artistic faculties as new attributes to the human race, without antecedents, and not to be accounted for by evolution. Crea-

tion occurred simultaneously with evolution, manifesting itself in the sudden origin of new attributes which have not otherwise been accounted for. French Catholic priests have been among the foremost scientists in supporting the theory, and the Catholic clergy of Louvain, Belgium, have accepted the modern scientific interpretation in its entirety."

The article further quotes Dr Osborn as follows

"The outstanding irrefutable facts are the following

"First, that man with a human form and human attributes has been on earth over 500,000 years, according to the least estimates of geologic time

"Second, that man belongs to a family of his own, called the *Hominidæ*, which has a history entirely independent of all other families for an incalculable period of time—two and a half million years at the least geologic estimate

"Third, that this human and prehuman family, composed of the existing and prehistoric races of man, has from the first divided into many branches, more or less rapidly progressive and intelligent

"Fourth, that we have indisputable records of the early dispersal of these branches in central, southern and eastern Asia, in all except the northern parts of Europe

"Fifth, that our present knowledge both of the anatomical characters and the cultural unity of even the earliest known branches of the human race, point to the descent from a single geologically remote human stock, the blood and heritage from which constitutes a prehistoric brotherhood of man

"Sixth, that convincing evidence of these outstanding facts of early human history rests on the indestructible flint and stone industry interpreted, and upon absolutely consistent anatomical evidence clearly interpreted by four generations of expert, conscientious observers drawn from the ranks of laymen, of learned professions and of the clergy, especially of the Catholic Church"

Dr Osborn clearly states the opinion of the leading scientists of the World in regard to human evolution. Physicians are interested in what may be called the creed of scientific evolutionists, for they deal with facts of physical evolution,—the appendix for example,—and also with mental evolution,—as for example, the inheritance of mental defects and criminal tendencies. Moreover, the leading students of crime believe in the superior power of the church to influence moral action, and consider it to be one of the greatest factors in crime prevention and upright living. (See this Journal, January 15, 1926, page 82)

PROPAGANDA

The New York Sun, February 11, contains an article on "Making Public Opinion", which has a direct bearing on medical publicity. It says

"In the last ten years the process of influencing public opinion through the press has passed through several stages. The oldtime press agent has gone and in his place have appeared 'publicity agents' and, more recently, 'public relations counsel'. There has been a refinement of titles and also a refinement of methods. The word propaganda is now often avoided as if it carried with it the taint of dishonesty. Propaganda reached its highest point of development during the war, attaining such sweeping success that the word became in bad odor

"We have yet to hear a really satisfactory definition of propaganda. Each piece must be judged on its merits. One initial test can be stressed. That is frankness. Publicity that attempts to conceal its source is damned at once. As a matter of fact, frankness is essential to an effective plea. Suspicion makes of publicity a boomerang"

Physicians recognize the very great value of medical publicity. The tendency of physicians is to be too frank and to magnify the author of the articles. Medical societies very properly forbid their members to make publicity of their own exploits, and some go so far as to attempt to discipline those who publish any medical article in the lay press. A few societies, such as the Medical Societies of the Counties of Kings and Bronx, have committees on publicity which offer to censor medical news for newspaper editors, and to prepare authoritative statements on medical topics, but that system is too slow and cumbersome to suit the editors

Medical societies generally recognize the propriety and desirability that physicians shall write on topics of preventive medicine, and that they shall avoid those relating to cures of established diseases. Yet there are exceptions to this rule. The standard cure of cancer is excision, and it is proper to give publicity to this fact on all proper occasions. The curative value of diphtheria antitoxin is also to be published

One of the tests of the ethics of a medical writer is whether or not the publicity conduces to the financial benefit of the writer,—whether or not it brings patients to him, or enhances his own reputation at the expense of those who disagree with him. But since physicians generally believe in the excision of cancerous tissue and in the administration of diphtheria antitoxin, educational articles advocating those procedures benefit all physicians as well as the public,—and those physicians who disagree with the accepted standards of the profession deserve their fate if the publicity leads patients to avoid them



BOOK REVIEWS



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By ISAAC LEVIN, M.D.,
NEW YORK CITY

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Virchow, who established the conception of the cellular derivation of cancer, maintained that every cancer cell, be it carcinoma or sarcoma, develops from connective tissue cells and that the latter are transformed into carcinoma cells by the aid of a metaplastic "irritation." Remak and Hiss, who established the fact that each cell in an adult organism must be derived from one of the three embryonal germ layers, held that a carcinoma cell must be derived from an epithelial cell. Thiersch, through his extensive histological studies of epitheliomata, demonstrated conclusively that a carcinoma cell is derived from an epithelial cell. He defined the cellular theory of V. as strictly by the principle, *Omnis cellula e cellula ejusdem generis*. Further investigations of Thiersch, Waldeyer and their followers, studies which continued for years, established irrevocably the fact that cancer in any organ develops from the parenchymatous cells of this organ. Secondary, metastatic tumors, where-

ever formed, are derived from the cancer cells of the primary tumor and consequently in the ultimate analysis are derived from the parenchymatous cells of the organ in which the primary tumor took its origin. In some instances, like a metastatic carcinoma of the rectum, in the brain, or a metastatic carcinoma of the breast, in a bone, the derivation is quite evident. In other cases, the metastatic tumor may differ morphologically to a certain extent from the primary tumor (metastases of a scirrhous carcinoma of the breast obtain the form of a solid carcinoma), but the derivation can always be easily traced.

The specificity of the derivation of the different types of cancer cells is subject to most remarkable refinement. Carcinoma of the cervix uteri, for instance, differs from the carcinoma of the corpus uteri from the pathological as well as clinical aspects fully as much as bronchopneumonia differs from lobar pneumonia.

The fact that the development of a tumor is due to a differentiation and proliferation of normal body cells is just as true of benign tumors as of cancer. Any hypothesis of the origin of cancer must be in harmony with this conceptions of the mechanism of formation of benign tumors.

Until the beginning of the twentieth century, cancer research was based primarily on morphological study of malignant tumors. The theories evolved as regards the etiology of cancer were not based on any experimental evidence. All the numerous hypotheses can be subdivided into two large groups. One group, to which Virchow himself belonged and which found its most astute proponent in Ribbert, maintained that any normal cell of the organism may, under influence of a certain "metaplastic irritant," be transformed into a cancer cell. The other group with Cohnheim at the head, held that cancer can develop only through the activity of a group of cells which retained in a dormant state the characteristics of fetal life, a group of cells which represented a so-called "embryonic rest."

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ception that cancer is a type of neoplasia. In order to evaluate correctly the results of the more recent experimental and clinical cancer research which will be discussed later, it is necessary to analyze the relationship between cancer and other types of neoplasia as they occur in adult animal and plant life.

THE RÔLE OF NEOPLASIA IN ANIMAL AND PLANT PATHOLOGY

Neoplasia occurs in adult life of an organism to aid the needs of physiological function of an organ (spermatogenesis, lactation, formation of placenta, etc). It further takes place either as a *reactive* new tissue formation to protect the organism against noxious agents or as a *reparative* neoplasia to replace lost tissue. The difference between these types of neoplasia and formation of cancer consists in the fact that the former types of neoplasia continue only as long as it is necessary to accomplish the work of protection or repair and then cease. The endless proliferation of the cancer cells, on the other hand, serves no good purpose to the organism and ultimately destroys it. It is possible to conceive a priori that other types of neoplasia may gradually change into malignant new growth.

The relationship between the reactive neoplasia and formation of malignant tumors in plants was the subject of a series of investigations of the writer in collaboration with M. Levine. The research was done on crown gall, club root of cabbage, and on potato "wart." In order to understand the results obtained, the difference in the structure of an animal and a plant organism must be taken into consideration. An animal organism reacts frequently to an attack of any injurious agent with the so-called *inflammatory* processes, which are accompanied by activities of the lymphoid tissues and proliferation and migrations of lymph cells. These cells and tissues offer the necessary protection and destroy or neutralize the noxious agent. Subsequently, the repair of the injured tissue and formation of a scar is also done by the lymphoid tissue. Even the highest organized plants do not possess any specialized lymphoid tissue. The main method of self-protection of a plant against an injury is the proliferation of the cells of the region which was subjected to the injury. The investigations of the writer have shown that in plants, as a result of a parasitic invasion, there forms a benign tumor which is analogous to a granuloma in an animal organism. A small fraction of these benign tumors-granulomata may be directly transformed into biologically malignant tumors. Similar conditions will be shown later to exist in animal pathology.

INOCULABLE ANIMAL CANCERS

The ultimate elucidation of the mystery which surrounds the transformation of any type of

neoplasia into cancer was brought a great deal nearer by the experimental cancer research of the last quarter of a century.

In 1901, Jensen showed in a very complete and exhaustive study that he succeeded in transplanting a mammary carcinoma of a white mouse into other white mice. He continued to reproduce from generation to generation of mice with equal success. This research was the beginning of experimental cancer research which continues throughout the world to date. The inoculations consisted in the introduction into the subcutaneous tissue of the axilla of the animals either of an emulsion of the tumor or of a small piece of tumor tissue.

The basic conception for this whole field of experimental cancer research is the most generally accepted idea that the tumors of white mice and white rats are analogous to human cancer. Some investigators, however, notably von Hanseemann, maintained that there is no analogy between these tumors and human cancer. He bases his opinion on the following differential characteristics between the two conditions: (1) Human cancers never reach as large a size in proportion to the body weight as do the tumors in animals. The only tumors that reach such a size in man are benign growths. (2) Animals do not suffer constitutionally from the tumor, i.e., the state of cachexia is not observed. (3) The tumors in the mouse and rat appear as movable encapsulated nodules, which are easily removed surgically and do not recur after the operation. (4) A true metastasis does not take place in these animals. Conditions described as metastasis are simply multiple inoculations. When an emulsion of the tumor cells is injected subcutaneously, part of it may enter a blood vessel and thus reach some distant part of the animal and form there a second tumor, which is, consequently, not a metastasis. (5) The inoculated tumors frequently retrocede, whereas human cancer does not. The apparent spontaneous cures described occasionally in human beings are due usually to a wrong diagnosis. (6) Morphologically, the animal tumors resemble endotheliomata most nearly, and while it is not possible to prove absolutely the endothelial nature of the growth, the growths are not analogous morphologically to human carcinoma.

In his discussion von Hanseemann apparently had in mind mainly the tumors artificially inoculated into previously healthy animals. In order to gain a true conception of the nature of the animal tumors, the analysis must begin with the spontaneously occurring tumors from which the material for the inoculation is taken.

The number of the morphologically different forms of these tumors that have been described in animals is nearly as great as the number of human cancers. Jobling described cases of adenocarcinoma, cystadenoma, alveolar carcinoma,

and sarcoma. Haaland described carcinoma of the preputial gland, adenocarcinoma of the kidney and ovary, spindle-celled, round-celled, and polymorphous celled sarcoma, melanoma, and fibromyoma of the uterus. It is evidently impossible to classify all these tumors as endotheliomata.

The best proof of the fact that these spontaneous tumors are malignant is the comparative frequency of the occurrence of metastases. Murray, in a study of sixty-eight mice with spontaneous tumors, found metastasis in the lungs in twenty-seven cases, and in the lymphatic glands in three cases. In studying twenty-six animals Jobling found metastases in five, and Haaland, in a study of 273 animals that had spontaneous tumors, found nodules clearly visible to the naked eye in the lungs of 38 per cent of them.

Furthermore, most of the clinical characteristics of these tumors clearly indicate that the animals are suffering from a malignant disease. According to Haaland, the average duration of life of the animals after the tumor has come under observation is about six weeks.

What is still more conclusive is the fact, also observed by Haaland, that in 54 per cent of the animals with spontaneous tumors, the tumor recurred after an apparently radical operative removal. The same phenomenon was observed by Clunet. There can be no doubt, therefore, that a spontaneous tumor in a white mouse or white rat is malignant and consequently not only morphologically but also biologically analogous to human cancer.

It is impossible to define what is to be considered a condition of cachexia in these animals. The fact, however, that the animals die in the short period of about six weeks after the tumor is discovered, shows that the general health of the animal must have been deeply affected by the growth of the tumor.

Tumors artificially reproduced through inoculation in previously normal animals are of greater value for the experimental study of cancer than the spontaneous tumors. The reason is that the latter are comparatively rare, while inoculated tumors may be obtained in any desired number. These artificial tumors apparently seem to differ widely both from the spontaneous tumors of the same animals and from malignant growth in man. Although the material used for the inoculation is taken originally from a spontaneous tumor, i.e., from an animal suffering from a malignant growth, the tumor that develops in the new host seems to be of a more benign character when the transfer is made by a subcutaneous inoculation. As a result of this inoculation there forms under the skin a growth which may reach a very large size. In the majority of cases this tumor is circumscribed, movable, and encapsulated. It usually does not infiltrate the surrounding tissue, it never infiltrates bone, peri-

toneum, or the pleura, and very seldom infiltrates the fascia and musculature underlying the skin. The skin itself, however, may become adherent to the tumor and ulcerate. Upon complete surgical removal the tumor does not recur as does the spontaneous tumor. Thus, the inoculated tumors apparently resemble benign growths rather than true cancers. In order to study the true behavior of the inoculated tumor and its influence on the general state of health of the new host, the writer has undertaken a series of investigations with inoculation of these tumors into internal organs.

For the inoculation into organs the writer employed the white rat mainly. Two tumors served for the inoculations: a spindle-celled sarcoma of the white rat, and an adenocarcinoma described by Flexner and Jobling. The tumors were inoculated into the brain, testicle, kidney, spleen and liver. The organ was reached through an abdominal or lumbar incision, or by trephining the skull to reach the brain, and then a small piece of the tumor was placed in the center of the organ by means of a trocar needle. The bleeding even in the liver was minimal and ceased very soon. The abdominal or lumbar incision was then closed by a silk suture. The trocar needle does not cause any permanent injury to the organ.

When the tumor, placed inside an organ, fails to grow, it is with difficulty that one can notice any change in the region where the tumor graft was placed, either by gross inspection or by microscopical examination. Consequently, whatever local change is found in the region of the organ surrounding the growing tumor is caused not by a mechanical injury through the operation but by the interaction between the organ cells and tumor cells.

In order to compare the effects produced by inoculating a tumor into one of the organs of a susceptible animal, with the effects seen in human beings suffering from cancer, it is well to recapitulate the salient characteristics of malignant tumors. These characteristics are (1) rapidity of growth, (2) peripheral extension, lack of capsule, and invasive infiltration of the surrounding tissue, (3) tendency to develop metastases and to recur after removal, and (4) cachexia and clinical malignancy.

The tumors produced by inoculation into organs were analogous to human cancer of deep seated organs in every detail. It did not grow to as large a size as the subcutaneous tumors grew invasively, formed metastases and killed the animals in from 6 to 12 weeks.

IMMUNITY IN CANCER

The most important phenomenon observed in the study of experimental cancer consists in the so-called immunity or resistance of certain animals to the growth of the inoculated tumors.

This resistance depends upon a number of various complex conditions. The phenomenon is a resultant of two component parts (1) *the power of the inoculated cancer cell for unlimited proliferation* and (2) *the reaction of the organism of the host*. When a spontaneous tumor is inoculated it grows successfully only in a small number of animals used, frequently in less than 10 per cent. In subsequent inoculations with material taken from the implanted tumors the cancer cell increases *its proliferating power—its virulence*. The same is true of metastatic tumors in the human. The fact, on the other hand, that a certain number of animals always retain their resistance to the tumor growth shows *the influence of the reactivity of the host*.

Many interesting phenomena relating to resistance of the host to the growth of the malignant tumors were noted by the writer through his method of inoculation into organs. The phenomenon of the greatest importance from both the theoretical and practical standpoint, is the condition of local organ resistance which the writer has demonstrated by this research method. In the experiments with an adenocarcinoma of the white rat, discovered by Flexner and Jobling, the writer observed that while the tumor grows when inoculated subcutaneously or into any other organ in a large percentage of animals used, it does not grow when inoculated into a normal testicle.

This failure of the growth of the tumor in the normal testicle is not due to a general condition of the organism, but to a local action of the testicle on the tumor cells. The percentage of animals which are generally resistant to a subcutaneous inoculation of this adenocarcinoma is very small, therefore all the animals used for the inoculation into the testicle could not have been resistant to the growth of the tumor, nor was the failure due to the mechanical influence of the tunica interfering with the expansion of the organ by the growing tumor, since other types of tumors grow readily in the testicle. The mechanism of this local resistance can thus be due only to an inhibitory action upon the cells of this tumor by the parenchymatous cells of the testicle.

PRECANCEROUS STATES

(a) *Experimental Evidence* In 1913, Fieger reported on a series of experiments which consisted in feeding rats with cockroaches infected with a nematode. These rats developed in the stomach *inflammatory conditions, papillomata* and in a certain number of cases *true carcinomata* with formation of *metastases*. The carcinomata were inoculable.

About the same time Yamagiwa and Ichikawa, two Japanese investigators, reported that they succeeded in artificially producing malignant epitheliomata of the skin by painting the skin of

the animals—rabbits and rats—with coal tar and its derivatives. Since then a great deal of similar work is being done all over the world.

These investigations represent a step forward in experimental cancer research since it proves that cancer may be produced artificially by known means. The correct analysis, however, of the results obtained must take into consideration two facts. (1) That the irritation must be continued for a long time. Eight months of treatment of a rat corresponds to about twenty-five years of treatment in a human, since the life cycle of a rat is only two years. (2) Only a small fraction of the number of animals experimented upon (10% to 25%) develop true malignant tumors, while the rest of the animals show at best only *precancerous* conditions. The significance of these two facts will be discussed later.

In the ultimate analysis the results consist in the following. The parasitic or chemical irritants produce a *precancerous condition* or in other words a *favorable soil* on which either an inoculable or a spontaneous malignant tumor develops. In this respect the results are analogous to an artificial production of a precancerous state which the writer reported in 1912. As was stated above, in a white rat susceptible to the growth of a Flexner-Jobling carcinoma, when inoculated subcutaneously or in any other organ, the tumor does not grow when inoculated in the testicle. In a series of animals the writer treated the testicles before inoculation with the tumor with injection of Scharlach-R Oil or a 4% mixture of sulphuric ether in water. As a result of this treatment there was noted an injury of the parenchymatous tissue of the organ and formation of inflammatory connective tissue. Inoculation of the Flexner-Jobling carcinoma in such testicles was successful. In these experiments, like in the experiments with parasites or the coal tar products, the soil was made favorable for the development of cancer. A *precancerous state* was created.

(b) *Clinical Evidence* There has accumulated, of recent years, a vast amount of clinical evidence of a direct relationship between chronic irritation continued for years and formation of cancer. East Indians, who use Kangri stove, develop epithelioma of the skin of the abdomen on the basis of a dermatitis produced by the stove. The eastern women, who constantly chew betel-nut, develop epitheliomata of the cheek in the exact area in which the betel-nut was kept. Dr. A. Scott made an exhaustive study of the occupation dermatoses of the paraffin workers of the Scottish shale oil industry. A certain number of the workers develop epithelioma following these occupation dermatoses. Workers in aniline dyes factories develop cystitis and subsequently carcinoma of the bladder. Carcinoma of the bladder infected with bilharzia, Piget >

disease of the nipple, epithelioma arising on the basis of an X-ray dermatosis, are other instances of the same kind. This clinical evidence leaves no doubt that continued chronic irritation acts as a precancerous condition and prepares a favorable soil for the development of cancer. A very interesting case came to our clinic recently in which an epithelioma developed on the basis of a tuberculous skin ulcer. The case will be reported elsewhere. The writer has shown in his clinical investigations that Hodgkin's disease begins as an infectious granuloma and then subsequently develops into a true lymphosarcomatosis.

As was shown above for the chronic irritations produced artificially in animals the same two conditions must be noted for the chronic irritations acting as precancerous states in the human, namely the irritations must continue for a long period of time, and only in a small percentage of cases does cancer actually develop.

EVALUATION OF THE PARASITIC THEORY OF CANCER

The search for a specific microorganism as the etiological factor in cancer began forty years ago immediately upon the discovery of the parasitic origin of infectious diseases. An amazing amount of work was done on the subject. In the majority of instances the specific organism upon further investigation proved to be an innocent saprophyte.

In 1907, E. F. Smith showed that the disease of plants called crown-gall—tumor-like in nature—could be reproduced artificially by an inoculation of a normal plant with a pure culture of a bacillus which he called *Bacterium tumefaciens*. Smith maintains that this or a similar disease can be produced only by this particular organism, that all other tumor-like formations observed in plants due to other parasites, like *Plasmiodiophora brassicae*, are entirely different pathological entities, and that only crown-gall is a true plant tumor. In his estimation this tumor is practically identical biologically with animal and human cancer. Since crown-gall is caused by the action of the bacterium described by him, he concludes in one of his recent articles that "to a biologist the conclusion is almost irresistible that human cancer must be due to a parasite and that one parasite may well be the cause of the most diverse forms, as we have seen to be the case in plants." This deduction is so sweeping in character, so far reaching in its generalization, and the results of Dr. Smith's work have become so widely known and quoted by the medical profession that it has seemed to the writer to be desirable to renew his investigations to analyze the material from the viewpoint of animal pathology, and to attempt to determine the true analogy between the crown-gall and animal cancer. The investigation is stated above, was

done in collaboration with a botanist, M. Levin.

The results obtained may be briefly summarized as follows. Crown-gall is undoubtedly a *neoplastic disease* and the pathogenesis of the condition consists in an abnormal proliferation of a group of cells. It must again be reiterated however that in comparing new growth in animals and plants one must take into consideration the fact that an adult vertebrate is not capable of reproducing complete organs, while the highest plants may and do constantly reproduce with ease all their organs, leaves and branches as well as roots. Reproduction of parts of the organism, and consequently cell proliferation, is a function of an adult plant which may be induced with the greatest of ease. It is self-evident that since an adult plant cell proliferates so as to reproduce an organ, a young crown-gall cell may do likewise. This characteristic of a normal plant cell explains the striking phenomenon, not encountered in any neoplastic disease in the animal, that a crown-gall may form within its own cells, or rather as a transformation of its cells, not only adult differentiated tissues (parenchyma) but even rudimentary organs (conducting system) or a whole rudimentary organism (leafy shoot). All these various types of structures found in a crown-gall do not indicate, as appears to be the opinion of Smith, that the crown-gall is analogous to all the types of human cancer, but rather that it is different from any type of animal tumor.

In order to formulate clearly the position which the crown-gall occupies among the neoplastic diseases, one must take into consideration the fact that the crown-gall is usually a benign condition and only rarely does it act in a manner analogous to a malignant tumor in an animal.

The true mechanism of the formation of the benign crown-gall can be conceived only in the light of the difference in the structure of an animal and plant organism. An animal organism, as was stated above, reacts frequently to an attack of an injurious agent with the so-called inflammatory processes, which are accompanied by certain activities of the lymphoid tissues and proliferation and migrations of lymph cells. These cells, and not the special tissues of the injured region offer protection, envelop and destroy the injurious agent or neutralize it. When the latter is destroyed the inflammatory process ceases and functions of repair or replacement of the injured tissue take place. This repair, which ends in the formation of a scar, is a type of neoplasia which differs radically from tumor formation. It continues just as long as is necessary to replace the lost tissue and then ceases, while a malignant tumor is a neoplasia which has no reason for its formation in the needs of the organism and has no finality in its development.

Even the highest organized plants do not pos-

sess any specialized lymphoid tissue to take care of the functions of the protection of the organism against an injury or of the repair of the injured or lost tissue. One of the methods of protection of plants against injury consists in the presence of a cellulose wall. It seems plausible to suppose that as a matter of self protection a plant may respond to an injury by a proliferation of the cells of the region which was subjected to the injury. The small wart-like galls, which grow very rapidly for a time and then remain stationary, as the writer has observed in a number of instances, are products of such functions of repair and protection and do not represent true tumors.

Thus a small benign crown-gall is a condition analogous to *granulation tissue and a scar* in the animal organism. A crown-gall which grew to comparatively large size and still does not affect in any way the general welfare of the plant may be compared to a benign tumor in an animal, but is probably more nearly analogous to a large *callus*, which develops after a fracture of a long bone, or to a *cheloid* in the human.

Smith ascribes a great deal of importance to the phenomenon of development of leafy shoots in a certain number of crown-galls, and considers this type of gall to be identical with human embryoma. This finding he considers the main proof for his contention that all types of human cancer may be reproduced in plants by the aid of the *Bacterium tumefaciens*. In the opinion of the writer there is no analogy between a human embryoma and the crown-gall with a leafy shoot sprouting from it. An embryoma is a growth consisting of an irregular combination of various fetal tissues. It is more akin to a malformation than to a true tumor. A malignant tumor may develop subsequently within an embryoma in the same manner as it develops within normal tissue. The leafy shoot, on the other hand, appears on a fully developed crown-gall and is identical with a shoot which develops in a normal part of a plant. It simply indicates that crown-gall tissue, as well as normal plant tissue, may reproduce complete organs and thus still more widens the gap between the animal tumors and the crown-gall.

The malignant type of crown-gall is undoubtedly quite analogous to animal cancer. This malignant transformation takes place, however, rarely as is seen from the results of the field studies on sugar beets of Townsend, who found that the destruction of the beets by the gall is not sufficient to influence the tonnage of the crop. Furthermore, this transformation is not related directly to the function of *bacterium tumefaciens*.

A spindle cell sarcoma of a fowl was described by Rous, which is apparently analogous to other malignant animal tumors. The tumor infiltrates and destroys the surrounding tissues and metastasizes in the internal organs. The inoculated

animals emaciate and die within three weeks after the inoculation. This tumor can be propagated not only by inoculation with fresh living sarcoma tissue, but also by means of tumor filtrate passed through a Berkefeld filter. In the white mice and rats described previously, it required the placing of viable cancer cells into a normal animal in order that a new tumor might develop. In the chicken sarcoma, on the other hand, an injection of a tumor filtrate, which cannot contain living cancer cells, but only either a chemical agent or an ultramicroscopic organism, is followed by the development of the identical sarcoma in the new host.

An investigation was reported recently by J. W. Nuzum which consisted briefly in the following. He obtained from human breast cancer as well as from inoculable tumors of the white mice, a micrococcus of the streptococcus group in pure culture. He treated 72 mice with this culture in the same manner as animals are being treated at present with chemical or parasitic irritants, giving as many as 62 treatments in the course of four months. These treatments resulted in epithelial proliferations of the skin. A malignant tumor did not develop in a single animal. Fifty mice were treated in the same manner with cultures of streptococcus pyogenes and staphylococcus albus. These latter animals either died of septicaemia or developed abscesses. Ten bitches received bi-weekly injection of the culture of a micrococcus obtained from a human breast for a period of six months. A number of the dogs developed chronic cystic mastitis and one old dog developed a carcinoma with metastases. A man seventy years old, suffering from epithelioma of the cheek, was treated with the same culture for four and a half months three times a week over the skin of the right groin and an epidermoid cancer developed at the area of the skin area treated. Nuzum concludes as follows: "While the results of these inoculations may be interpreted differently and the explanation of a chronic non-specific irritation brought forward, the obvious fact cannot be denied by those entitled to an opinion that genuine cancer with metastases has been produced in the dog and primary cancer in man by repeated inoculations of pure cultures of the microorganism so constantly present in human breast carcinoma."

It seems to the writer that any proof of specificity of the microorganism is lacking in the experiments of Nuzum. The results obtained on the mice is most probably due to the fact that his microorganism is a saprophite and therefore acted in a manner identical to paraffine, soot or any ordinary irritant would have acted, while the pyogenic microorganisms which he rubbed into the fifty mice were pathogenic and produced septicemia or abscess.

Nuzum himself quotes Goodpasture, who

found in 2% of old dogs spontaneous malignant breast tumors. The burden of proof that the formation of the cancer in the only dog was not a coincidence rests on Nuzum, and in order to prove the specific action of the microorganism on the human skin, Nuzum should have done a control experiment by rubbing into another skin area paraffine, soot or any other chemical irritant for the same length of time in order to ascertain that a similar epidermoid cancer would not develop.

Meanwhile, F. Blumenthal of Berlin reports that he succeeded in isolating from human breast in a pure culture a microorganism similar to the *Bacterium Tumefaciens* of E. F. Smith and that he succeeded in obtaining with it inoculable tumors of white rats.

Now what is the true etiological relationship between these innumerable parasites and cancer? Which of these parasites is specific or are they all specific? Has it been proven that there exists a class of parasites which incites normal organ cells to proliferation, the so called bacterium *neoformans* of Doyen or bacterium *tumefaciens* of Smith?

Smith, discussing the tar cancers, states as follows: "The tar treatments involve a long continued open wound subject to and inviting all sorts of infections, so that if there were a cancer parasite in the environment of any of these animals, either in the soil, or in the litter, or on its food, or on its skin, or on the walls of the cage, or in the dust of the room, or on the hands of men handling the wounds, it would be more or less certain to find lodgement and a very favorable nidus in these irritated raw places."

The possibility of omnipresence of a specific microorganism causing the formation of all types of cancer cannot be denied offhand. However, the behavior of such a hypothetical organism would have to be different from that of any parasite known to date. All pathogenic microorganisms investigated thus far produce a destructive degenerative effect on the cells of invaded tissues. This effect may be accompanied by reactive neoplasia of the lymphoid tissue. It is conceivable that such a purposeful reactive neoplasia may gradually change into malignant neoplasia of the local connective tissue when the soil of the host is favorable. The pathogenesis of sarcoma particularly lymphosarcoma, Rous' chicken sarcoma, as well as the plant tumors, as was shown above, may be closely related to the preexisting reactive neoplasia caused by a parasite. In other words it is difficult to prove that in connective tissue cancers the secondary tumors are metastatic and are not created anew in the distant regions through the action of an invisible parasite on the connective tissue of the new location. A metastatic adenocarcinoma of the rectum, in the brain, however, cannot be

conceivably created from any of the cells of the latter organ.

The action of a hypothetical cancer microorganism can be conceived only in one of the following two ways. Either the organism acts on the first group of organ cells, changes them into cancer cells and then ceases its function. In this case the action of the parasite would be subordinate to the cellular function and would not differ from a non-specific chemical irritant. The proliferative power of cancer cell itself would be the true cause of cancer. Else the constant presence and action of the parasite is needed for the formation of the primary as well as the secondary malignant tumors. Such a parasite would have to live in symbiosis with the cancer cell, divide simultaneously with the latter and migrate together throughout the organism of the host, in a word, must submerge its life and function with the life of the cancer cell. The most striking instance of such a dominance of the cellular as against parasitic characteristics of cancer is presented by the behavior of two primary cancers in the same individual. The occurrence of double primary malignant tumors in the same patient is more common than was thought previously. Each primary tumor produces its own metastatic tumors in different organs. Examination reveals two types of metastatic tumors differing from each other and resembling their own primary tumors. A parasitic action causing such refined cellular specificity and differentiation is difficult to conceive. The phenomenon is undoubtedly due to the innate autonomous characteristics of the different somatic cells which have become changed into cancer cells.

It seems to be easier for the human mind to think in medicine in terms of parasites and extrinsic irritants and noxious agents than to fathom the intricacies of endocellular functions and to estimate the fundamental laws governing cellular proliferation and growth under normal as well as pathological conditions.

THE RÔLE OF INHERITANCE IN CANCER

An analysis of all the available data of the causation of cancer indicates that the formation of a malignant tumor is the resultant of three factors. (1) The innate power of every normal cell to proliferate. This fact, that any normal cell relieved from the restraint of the rest of the organ begins to proliferate, has been conclusively proven by the successful cultivation of normal as well as cancer cells in vitro. (2) An irritant which initiates the proliferation of cells for the purpose of protection and repair. (3) Lack or weakness of those inhibiting powers of an adult organism which keep in check all its normal tissue cells against purposeless malignant proliferation.

While the second factor is extrinsic in its

nature, the first and third factors are inherent characteristics of all living organisms. It is plausible to suppose a priori, therefore, that these latter factors in causation of cancer may be characteristics transmitted by inheritance to subsequent generations.

The problem of inheritance in cancer has been occupying the minds of investigators for a long time. The results were rather unsatisfactory. With the advent of the modern science of genetics, which is based on the fundamental laws of inheritance discovered by Mendel in 1865, the subject of inheritance of cancer was taken up anew.

The writer has shown in 1910, in a series of experiments, that the offspring of rats immune against the inoculation of a tumor is partly immune and partly susceptible to the inoculation. The ratio between the number of resistant and susceptible animals seemed to correspond with the Mendelian laws and also seemed to indicate that the inherited power of resistance is a dominant unit-character in accordance with the terminology of Mendelian genetics. Similar conclusions were derived at by Maud Sly in her studies of inheritance of spontaneous tumors of mice. Th H Morgan and his pupils have discovered a malignant tumor of the fruit fly (*Drosophila melanogaster*) which is transferred by inheritance in conformity with Mendelian laws. The writer made a study of the influence of heredity in human cancer by the aid of an analysis of the collected data in accordance with the Mendelian laws of eugenics. A number of families were studied for several generations back. The analysis of the material shows that the incidence of cancer in these families is not greater numerically than would be found among the population of the community as a whole. But there are several points in the analysis, which indicate that cancer may be influenced by heredity. A cancerous fraternity, i.e., a fraternity in which one or more members suffer from cancer, usually shows in a previous generation a cancerous member either on the paternal or maternal side or both. In other words, a cancerous fraternity is usually derived from the union of two germplasms, each of which is characterized by the presence of germ cells that are non-resistant to cancer.

The further conclusion may be drawn from the analysis of the results obtained that resistance to cancer is a dominant character whose absence creates the susceptibility to cancer. Another general inference may be made from the investigation that the susceptibility is specific in different

families for different organs. One family showed a preponderance of the cancer of the uterus in the female members, while another was characterized by cancer of the breast.

The most important result of the investigation thus far consists in the fact that it shows the importance of the presence of an inherited resistance to cancer growth. It may be of the greatest benefit for the future study of the subject of cancer to bear in mind not the fact that *one out of ten* persons who reach the cancer age suffers from the disease, but that *nine out of ten* remain immune.

It is very significant in this connection that an analysis of all the material experimental as well as clinical, obtained in the study of the relation of chemical or parasitic irritants on the formation of cancer, show the same results. Namely, of the whole number of animals used or the clinical cases investigated, only a comparatively small percentage develops cancer. This successful fraction generally ranges somewhere between 10% and 25%. This is rather close to the main fundamental Mendelian law that in the second generation there appear 75% with dominant unit characters and 25% recessive.

CONCLUSION

An investigator in any branch of the domain of science must always be ready to revise completely his conceptions when a new discovery is made. At the same time, without a working hypothesis, it is impossible to pursue scientific investigations.

The sum total of our knowledge of the causation of cancer to date make the following conceptions to be the most plausible. (1) Attempts of formation of cancer in any organism is frequent but the greatest number of people (not less than 75%) have an inherited capacity to resist the formation of cancer. (2) The human society is so inbred that every family has a certain number of members in one generation or another with an inherited susceptibility and further intermarriage cannot alter the situation. Consequently, for practical purposes, inheritance does not increase the chances of an individual to control cancer. (3) Without an additional local irritation of some kind, cancer may not develop even in a susceptible individual. (4) The most promising field in cancer research is the study of the conditions which favor the formation of cancer and the methods for their correction.

SURGICAL EXPOSURE OF DEEP-SEATED INACCESSIBLE NEOPLASMS FOR A PROPER IMPLANTATION WITH RADIUM EMANATION IN CAPILLARY GLASS TUBES BY THE BASAL ROUTE

By PAUL E. DURHAM, M.D.,

NEW YORK CITY

RADIUM emanation or Radon is a gas formed by the disintegration or breaking down of the radium atom (radium salt or element). This emanation is collected in long glass capillary tubes several feet in length, each of these tubes are then cut with a flame into bare tubes or seeds approximately 3 to 5 mm in length for practical purposes. But for more delicate work such as laryngeal implantation they are made as small as possible, i. e., as low as 2 mm in length. The usual sizes vary from 3 to 4 mm in length and 0.3 to 0.4 mm in diameter while the more minute ones are only 2 mm in length and 0.3 mm in diameter. These tubes are buried in the tumor and left permanently.

The quantity of emanation encased in each of these bare tubes depends upon the particular features of the tumor to be treated and upon the histopathological changes desired, whether a caustic effect with ulceration or a more gradual devitalization of the neoplasm with replacement by fibrous tissue. The writer prefers the latter method and wishes to avoid ulceration and slough with its attending sequele. And to accomplish this I am using seeds which as a rule vary from 0.3 to 0.6 mc. A millicurie of emanation is the quantity of emanation in equilibrium with one milligram of the radium salt. It supplies 132 millicurie hours of radiation to the surrounding tissues when embedded before it has become inactive. That is the same amount of radiation which would be given off by leaving one milligram of the radium salt deposited for 132 hours.

In reply to the question so often asked, "Do these bare tubes act as foreign bodies and cause trouble later?" We will state that we have never observed any bad results after implantation in a comparative large number of cases.

So far in the range of literature, the writer is unable to find one single article definitely laying down these four cardinal principles, namely surgical exposure of the tumor base, partial ligation of the arterial supply, bimanual palpation, and implantation with radium emanation bare tubes by way of the aseptic surgical wound of approach for the purposes of treatment of deep seated inaccessible neoplasms in general.

The step taken by Beck, partakes somewhat of the same nature as that which is proposed in this paper. The difference lies in the fact that Beck proposed to excise the growth or that part which was possible, and then treat with roentgen radiation or with filtered radium in metal tubes leaving the wound open to granulate in. The present paper is not concerned with partial surgi-

cal eradication, but with surgical exposure of the tumor from the "basal side" for purposes of palpation, arterial ligation and implantation with unfiltered radium emanation followed by sewing up the wound after this is accomplished.

I wish to make plain, that without any previous application of radiation, my plan is to (1) deliberately expose the basal structures of the tumor surgically, (2) ligate the main arterial supply to the involved lesion, (3) palpate the extensions with the fingers of each hand placed on the opposite sides of the tumor, and (4) follow with the distribution of radium seeds into the neoplastic field by inserting the implant needles through the base of the growth using the fingers on the opposite side of the tumor to guide the needles into the tumor and its extension.

An example of the application of these four cardinal principles in the treatment of deep-seated inaccessible neoplasms will be found described by myself in the May 20th issue of the *Medical Journal and Record* of this year, entitled "Intra-peritoneal Implantation of Cervical Carcinoma."

The following discussion will make it apparent that the use of all these principles combined is limited to the treatment of several organs most commonly involved but that the first principle in conjunction with two or even one of the others is often found justifiable if not demanded.

Many of the diverse methods heretofore described of applying radiation to neoplasms with associated surgical procedures err in principle because they are based upon

(1) The direct application of radiation to the external or superficial surface of lesions which are too deeply infiltrated to be efficiently radiated.

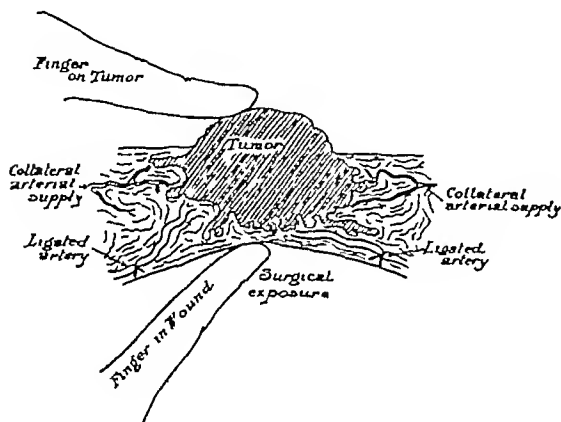
(2) The less precise or blind method of insertion of the implantation needles directly through the external surface of tumors with deep infiltrations, which can only be determined by surgical exposure.

Sufficient emphasis has not been laid upon surgical exposure of the basal structures of the tumor for the purposes of arterial ligation, bimanual palpation and implantation by the basal route.

Partial ligation of the arterial supply to the region involved has either been shelved to a great degree until the radium slough with impending hemorrhage no longer permitted delay or is performed at the time of treatment of metastatic glands at a late date. And the literature is still more barren in reference to the main item of this paper, i. e., the deposit of bare glass tubes of radium emanation throughout the tumor proper

and the circumscribing tissues, by inserting the implant needles under guidance of the eye through the aseptic surgical base of the wound using the fingers of the opposite hand on the outer surface of the growth to act as a guide to direct the implant needles accurately in the carcinomatous infiltrate and surrounding questionable tissues precisely as desired

Surgical exposure is the only means of bringing many deep seated neoplasms into accessible ones. This exploratory approach affords the opportunity to ascertain by sight and palpation the limits of extension of the growth which is essential if the neoplasm is to be implanted accurately with the distribution of bare tubes of radium emanation to all parts of the involvement. The



No 1—Method of palpation of tumor

accessibility so brought about permits the operator to insert the implant needles under guidance of the eye through this exposure into all parts of the growth, at the same time to direct and guide these with the opposite hand. This is especially advantageous in the intra-abdominal implantation of cervical carcinoma since the injury to the ureters and large vessels is very liable when attempts are made to implant blindly from below. Also in the implantation of tongue and floor of the mouth lesions with metastatic involvements of the upper neck which lie in close apposition to the jugulars, carotids and their large branches. I am at a loss to see where any radical step is taken in this method of attack since the growth is not disturbed, and the chances of metastasis are not increased because the line of incision for this surgical exposure does not pass through cancerous tissue but is removed for some distance. The time required for performing these several steps is much less than that for complete resection.

The incision for the exposure in every case should be so devised as to pass through healthy tissue yet afford free access to the basal structures of the tumor and an easy approach to the vessels and routes of extension along the lymphatics. See diagram (1)

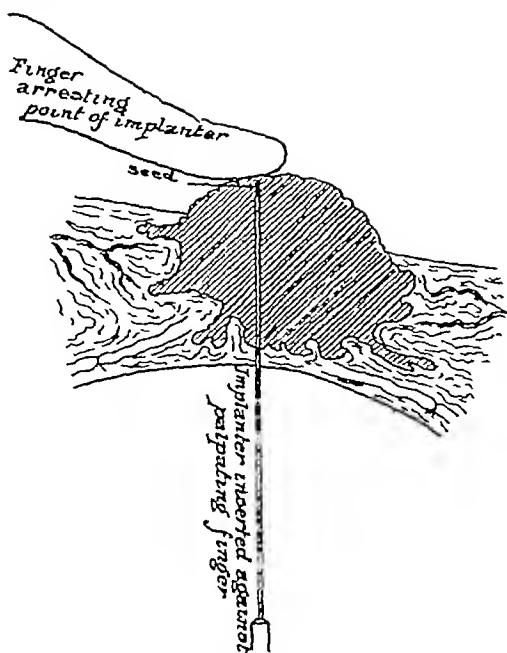
There will be a large number of accessible growths which will be amenable to implantation without surgical exposure, but there will also be many inaccessible neoplasms which must be exposed surgically for a proper implantation. Again, there will not be many deep seated lesions which lie too far distant from the orificial openings to be within range of the palpating finger that is to be applied to the external surface. *In any case where surgical exposure makes the neoplasms more accessible, the implantation with bare tubes is more accurately performed.*

The second step consists in the ligation of the main arterial supply to the tumor with disregard of the collateral branches, yet, at the same time these vessels subjected to ligation are dissected up to near the innermost portion of the tumor. But traumatization of the cancer tissue is not to be tolerated. Where an involved organ or area has a definite blood supply, I deem it absolutely essential to ligate the arterial supply partially or almost completely if possible to do so without producing gangrene or necrosis. The more commonly involved organs fortunately are supplied by several main arterial branches which may be ligated because the collateral circulation and capillary anastomosis is such that gangrene is not to be feared. In some instances it will be inadvisable to ligate all the main arteries to obviate necrosis. The particular lesion will call for either a complete ligation if possible or only a partial ligation of the supplying arteries and in others, ligation will not be tolerated. The uterus represents one of the first class, the tongue, the second, and bladder that of the latter.

Should it be necessary to dissect out the arteries which lie in a field removed from the line of incision such as happens after laparotomy in carcinoma of the cervix, then the arterial supply should be partially ligated as far away from the diseased tissue as practical.

The ligation of the main arterial branches supplying the tumor is too often omitted entirely. In some cases it is delayed until after the elapse of valuable time, as a result of waiting, the radiation produces a slough with severe hemorrhage. In some cases, it is deferred because of waiting for the opportunity to develop of treating metastatic lymphatic glands. *I believe, since this operation will become imperative, in such a high number of cases, that it should be performed as a primary early procedure before the patient becomes weakened from the loss of blood. It can not be refuted that the arrest of nourishment to the neoplasm does not render the cancer cells more susceptible to the radiation.*

Palpation is the only means of determining the degree and particular features of the extensions of the neoplasm (in most instances). The sense of touch, which may be developed to a high degree of accuracy will enable the surgeon to outline those structures which are invaded by the

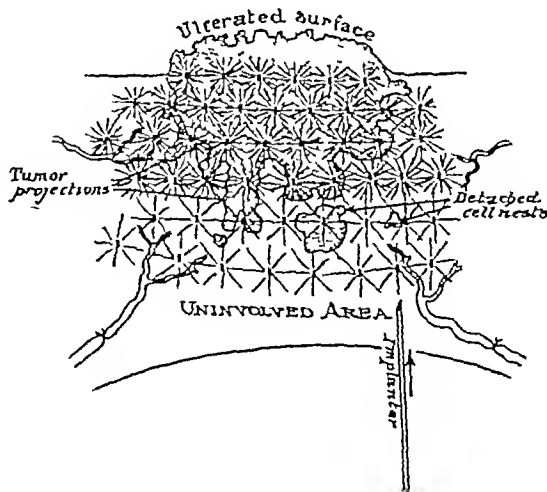


No 2—Proper method of implanting tumor through surgical exposure.

amount of induration present. The attempt to palpate a lesion by placing the fingers on one side only, or with the other hand on the opposite side which is covered with skin, muscle and other tissue, will usually only give a vague and indefinite perception. But where one is permitted to place the fingers of one hand on the outer surface and those of the other hand on the inner or basal portion of the involved area, with these covering tissues removed, the extensions are mapped out clearly and concisely, not to overlook the amount of movability present. (Again see diagram 1) Surgical exposure, then, of the involvement by the basal route becomes a necessity on many occasions if bimanual palpation is to be accomplished. Lesions of the tongue or floor of the mouth, carcinoma of the cervix, high rectal growths are often so exposed by the writer that this advantage may be gained.

The fourth step of implanting the tumor, after a determination of the area of involvement, is undertaken by inserting an implant needle into the basal structures and passing it through the body of the tumor until the point is felt to approach the palpating finger held on the opposite side. See Diagram, II. The important structures, i. e., the arteries, veins and nerves with neighboring organs lying in view, obviates any injury of these on the insertion of the implant needles. The left hand not only palpates the indurations which necessarily are more heavily embedded, but is used to hold the mass firmly which permits the needles to be passed accurately and with precision at regular distances apart.

And since the operator is aware of the approach of the needle point by the sense of touch, before the penetration of some 2 to 5 mm in most cases, the introduction of the implant needle is halted before entering the ulcerated surface, which prevents withdrawal of infection into the deeper tissues and operative wound. The needle is withdrawn for a short distance and the plunger is forced forward leaving the bare tube deposited in the channel, after which, the needle is again withdrawn for a short distance of about $\frac{3}{4}$ to 1 cm for the deposit of another seed. (I commonly prefer to embed seeds every $\frac{3}{4}$ cm in carcinoma tissue) The withdrawal of the needle and the depositing of the seeds at these equidistant positions is repeated until the last seed is left in situ near the point of insertion. My practice is to implant sections of the cancerous field individually by inserting a sufficient number of needles, more or less parallel and withdrawing one needle at a time, implanting each channel as described above. After this, other sections are likewise mapped out and implanted. The area of tissue circumscribing the growth for some distance is implanted with bare tubes of lower units than the ones used intratumorally, besides, the distances apart are increased as the circumference of the area to be implanted is approached. Thus, in the treatment of many tumors and especially those of moderate size, I am using only two strengths of



No 3—Proper distribution of radium seeds in and circumscribing tumor

seeds—those of higher denomination for the intratumoral mass and the lesser fraction for the surrounding tissue.

But for those growths in the advanced stage with extensive ramifications in which, besides the main mass, the regional nodes are known to be involved and there is little doubt that there are minute detachments of cell masses beyond which

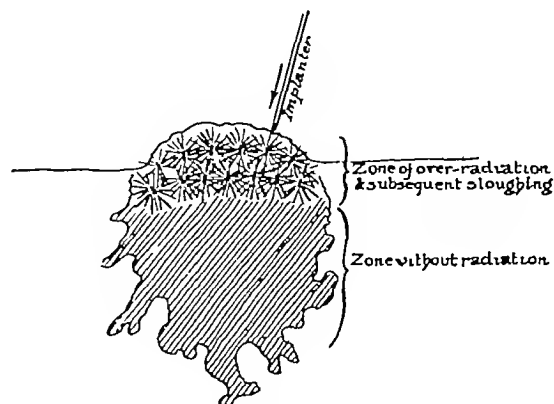
are not palpable, I have recently used three denominations of seeds. Those of the lowest units added for the treatment of the very outermost areas. The radiation of which seeds devitalizes the cell detachments and early involved regional nodes. This use of different strengths of seeds will enable one to use large quantities of emanation distributed over a wide field without danger of slough formation. See Figure III for a schematic diagram of a properly implanted neoplastic field. Recently I have used over 4,500 mc hr of unfiltered emanation in a single tumor field within the lower abdomen without disagreeable results. This emanation is unfiltered, therefore the effects from the beta and gamma rays are considerable. And the gamma radiation alone is even a larger quantity than that usually advocated by many at the present time for application to the lesions of the surface or within the body cavities enclosed in metal containers which are of sufficient thickness to remove all the beta and to lessen the intensity of the gamma rays.

The factor of dosage or quantity of irradiation which may be applied or implanted is necessarily a variable one even for lesions of the same type. It is needless to add that we must consider the dosage in conjunction with ligation more seriously than when radium is implanted alone. The ideal goal is to produce as complete an avascular field as possible and at the same time to step the quantity of radiation up to the limit of tolerance without producing an annoying or serious necrosis. The quantity of emanation which may be deposited into a neoplastic area is surprising if the radium tubes are distributed widely and at regular distances. Since this is a new field of endeavor, the clinical experience of the operator and the knowledge of the physics of radium must be the guides of the dosage to be employed. The proper distribution of radium bare tubes into a neoplasm depends upon the exact determination of the extensions. As seen in the diagrams, the attempt to blindly implant such will too often be followed by failure.

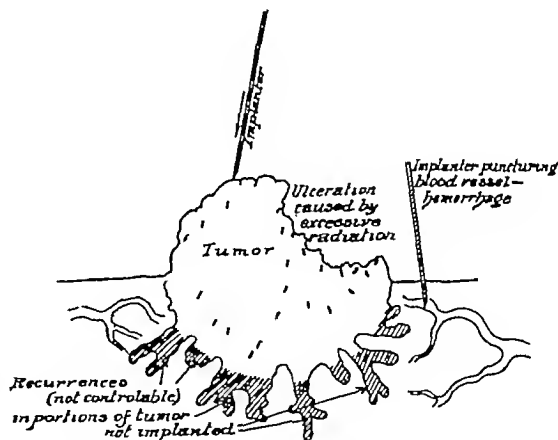
To accomplish the distribution of the seeds regularly and equidistant apart, some special type of needle must be used which will permit at least 5 or 6 or more seeds being deposited in one puncture channel. The implantation of 80 or 90 bare tubes often used would necessitate a great deal of injury and unnecessary trauma with a more likely chance of metastasis should we introduce each bare tube through an individual needle. These tubes would be deposited with irregularity and awkwardness. In the instance that several or more seeds are "bunched," the total irradiation in the limited area will in many instances cause necrosis from the overdose. While in other sections no seeds at all will be deposited or else will be too scattered to lethally affect the cancer cells. For the above mentioned reasons, it is a fault to attempt the implantation of lesions

without the use of a special needle in which the seeds may be reloaded and discharged until the desired number is deposited into each puncture channel. To meet this necessity, I have recently invented a new reloading cartridge needle.

Before the combined procedures mentioned above are resorted to, I am opposed to the application of external radiation because the exces-



No 4—Improper implantation of tumor through external surface



No 5—Improper implantation of tumor

sive radiation received by the skin from the seeds deposited below added to this surface radiation is very apt to destroy the skin. Again, any radiation applied to the surface of the primary lesion or deposited into it, will not only produce an inflammatory induration with the formation of fibrosis, which is difficult to diagnose from carcinomatous infiltration, but will be most confusing in determining and distributing the proper number of seeds. Should this last factor be all considered, either the excessive dose will produce a slough or a deficient dosage will fail to check the growth. To sum up, the most favorable type of growth for the application of the principles outlined above is the virgin growth which has not had previous treatment.

To go further in the discussion of the disadvantages of implantation through the external surface of growths which have reached a stage of appreciable advancement, they are in most cases ulcerated and infected.

The insertion of the radium needles from without through this infected surface is often followed by a severe and painful inflammation due to the introduction of bacteria into the deeper tissues, which often produces a slough with resulting sequelae. This sequelae may take the form of hemorrhage, fistula, perforation of the wall of an organ or bone necrosis with the production of severe pain and discomfort. Another item not to be overlooked is the hemorrhage into the tissues from the puncture needle being inserted into a vascular field whose blood supply has not been diminished. But this unwarranted consequence is avoided when the needles are inserted through the aseptic base of the wound (of the surgical exposure) which leaves the reaction comparatively mild.

Diagram No. 5 will not take much explanation to make plain how, even with the most ideal destruction of the body of the tumor by a most precise intratumoral injection of seeds through the external route, remnants are often left at the peripheral area, in the adjacent tissues neighboring the tumor or in the regional lymphatics. These detachments will give rise to the recurrence, even though the gamma radiation which is fanning out in all directions is considerable. The quantity of radiation necessary to arrest their development is not excessive if properly distributed in the initial or early stage of growth. Except in selected cases, the difficulty of depositing seeds into this indefinite and inaccessible field is too great to warrant the attempt. (See Diagrams 4 and 5.) The safest procedure to follow in suitable cases is that of surgical exposure of the tumor base with the distribution of bare tubes not only in the tumor but widely into the adjacent tissues circumscribing the growth. A further argument for this latter method of implantation is a study of the statistics of surgical eradication which clearly shows that the highest number of cures is obtained by that surgeon, who, trained by years of experience and possessing natural ability, has made the utmost effort to dissect out the growth with adjacent tissues just within the range of possibility. Those who are acquainted with the concepts of implantation do not doubt that the radiologist is capable of depositing seeds not only to that limit of the surgeons line of excision of the tissues but even beyond. The knowledge of the effects produced by the irradiation emitted by the bare tubes when properly distributed leaves no doubt concerning the advantage gained.

In some cases the incision may be extended along the line of the vessels for exploration should there be apparent glandular involvement.

As an example in the neck since the lymphatics accompany the blood vessels. Any freely movable gland which separates from its bed may be dissected out but when attempting to dissect a metastatic mass, and it is found to be definitely fixed to other structures, I believe it is better to implant with bare tubes with the idea of returning later for resection and implantation in the bed of removal, if necessary.

All the above procedures will be able to be accomplished with one exposure, with a few exceptions, in those types of cases applicable to this method of treatment.

In a wide review of the literature, these facts are evident. Surgical exposure for implantation is on a sound basis, ligation has not been stressed sufficiently in combination with implantation. Much has been said of resection or partial removal of growths followed by implantation or other forms of radiation, but there has been a failure to appreciate the advantages offered by surgical exposure to (a) partially ligate the arterial supply, (b) bimanually palpate the extent of the indurations between the opposing fingers (c) implant the growth and basal structures through the wound of approach, (d) treat the metastasis through the same incision.

REPORT OF TYPICAL CASE

Report of a case applicable to the four cardinal principles described above. Mrs. M. H., referred by Dr. T. H. Morgan, was admitted to Polyclinic Hospital January 27, 1925, complaining of excessive uterine bleeding, general weakness, and loss of weight.

Marital relations, menses have always been regular but profuse. Yet the last regular period is unknown. She has three children, fourteen, seven and six years of age.

Vaginal examination revealed a large cauliflower, fungating, ulcerated mass involving the cervix and filling a great part of the vagina with extensions in to both parametria.

Operation briefly stated, included a lower mid-line incision with ligation of both ovarian arteries, and the anterior branch of the internal iliac on the right side and the uterine artery on the left. After the growth was palpated between the index finger of the left hand in the vagina and those of the right hand in the abdomen to determine the limits of extension, 68 bare tubes were deposited into the neoplasm under guidance of the eye at the same time using the finger of the left hand below to act as a guide to the needle.

The patient suffered no more than the usual abdominal operative case, being up and around in some ten or twelve days. The discharge and foul odor ceased in a very short time. She has had no bleeding since operation and has been free of bladder or rectal disturbances. She gained fifteen pounds in six weeks after operation and has been doing her housework ever since. At the

present time she has no signs or symptoms of persistence of the growth

SUMMARY

Surgical exposure (1) is the only means of transforming an inaccessible neoplasm into an accessible one, (2) affords an opportunity to bimanually palpate the lesion, in the majority of deep seated neoplasms, to determine the character of the extensions, which is essential if the implant needles are to be inserted into all parts of the tumor, (3) obviates injury to the large arteries, veins, nerves and other important structures since they are exposed to view, (4) becomes the route for ligation of those vessels feeding the growth, if this latter step is practical

Ligation of the main arterial supply (a) renders the malignant cells more susceptible to the radium rays, (b) acts as a safe guard to control hemorrhage, either resulting from the erosion of a vessel by the invasion of the growth or radiation necrosis, (c) leaves the field of implantation dry, thus removing the annoyance from hemorrhage which prevents a successful distribution of seeds, (d) when performed early, does not permit the loss of blood, thus debilitating the patient to the point of having to divert the treatment from the aggressive to the palliative form, (e) greatly reduces the hemorrhage into the tissues caused by the puncture of the implant needles, which, besides interfering with the action of the radiation, favors infection, necrosis and severe pain, (f) arrests metastasis

Bimanual palpation of the tumor region (i.e., between the fingers of one hand placed on the external or outer surface and those of the other hand within the wound on the inner or basal structures of the growth) (1) renders most valuable aid in estimating the irregular areas of extension into the circumscribing tissues and regional lymphatics, (2) if substituted by palpating the external surface alone, renders it impossible in many cases to acquire the above facts or makes this determination less accurate

Implantation via the peripheral or basal route is to be preferred over other methods because (1) it is the only method in the treatment of deep seated inaccessible neoplasms of depositing bare tubes with precision into the peripheral growing cell areas and into the circumscribing tissues which harbor the cell detachments and early involved regional lymphatics, (2) attempts to blindly implant these inaccessible lesions through the external surface results in the neglect of the distribution of bare tubes into the areas of invasion (mentioned in No 1 above) with the result that the growth persists or recurs, (3) the

fingers placed on the outer surface of the tumor not only are used to hold it firmly but to guide and direct these implant needles which are inserted by sight accurately into the different sections of the tumor with the result that there is little error of irregular distribution of the bare tubes

CONCLUSIONS

(1) Surgical exposure of the basal structures of a great many cases of inaccessible neoplasms should be instituted in order that (a) bimanual palpation may be used to determine the limits of extension which is essential for, (b) an accurate and even distribution of bare tubes into the growth

(2) Since partial ligation of the arterial supply will become imperative in such a high number of cases and is per se a therapeutic measure, it should be performed primarily as an adjunct to implantation in suitable cases

(3) Opportunity to explore or treat metastatic glands is often afforded by merely lengthening the incision

(4) The growth is not disturbed, therefore the chances of metastasis are not increased

(5) All the above described procedures, i.e. surgical exposure, partial arterial ligation, bimanual palpation and the basal method of implantation are accomplished at one sitting and frequently under local anaesthesia

(6) The extent to which the above principles may be applied to any particular lesion will depend upon the ingenuity of the operator and the anatomical features of the structures involved

(7) Such types of lesions as carcinoma of the tongue, tonsil, floor of the mouth, cervix and high rectal growths will in the majority of instances, because of their unique anatomical state, in which implantation or the insertion of radium needles is indicated, conform to the use of the associated principles described above as the treatment of choice

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THE STOFFEL OPERATION FOR SPASTIC PARALYSIS*

By PRESCOTT LEBRETON, M.D. and ROBERT M. CLEARY, M.D.,

BUFFALO, N. Y.

As the Stoffel operation has not as yet found its place, so that the indications and the results are definitely determined, reports from different clinics, tabulating varied experiences, are of value. The object in the Stoffel operation is to cut down on one or more of the motor nerves of arm or leg, to isolate the motor branches to some of the overacting muscles causing interference with function, and to cut these nerve branches so that there will be a partial permanent paralysis. This gives, in the end, a better muscle balance, and lessens the spasticity, and tendency to deformity.

During the past few years the writers have operated on seventeen cases of spastic paralysis. Nine of these were boys and eight were girls. Five were hemiplegias and the remainder mostly paraplegias. In eight cases the internal popliteal was attacked, in five the obturator, in three the median, and in one the sciatic nerve. There were no infections. One boy died soon after operation, the cause of death being acute tonsillitis, endocarditis and general septicemia. The autopsy showed clean wounds over the obturator nerves. Excluding this one case, there remained sixteen cases, of which one half or 50% could be classified as good results. Four or 25% showed only fair results. Four or 25% poor results. By poor results is meant a continuance of spastic deformity, so that in these cases a tenotomy was needed later on in addition.

Before operating it is necessary to have at hand a battery to test the nerves. The writers use the common small faradic battery. One electrode is the usual wet sponge, to be applied to the patient's body at some convenient site. The other electrode is a metal applicator, in the handle of which a hole is drilled for the end of the battery wire. With the help of a dry sterile towel, the wire handle of the applicator are grasped firmly and the sterile tip is applied to the bare nerve branch. The muscle innervated will contract forcibly on contact. Too much current causes many adjacent muscles to react, therefore a small current, just enough to irritate the individual nerve, is sufficient. Often a light pinch by forceps will act as well as the current.

TECHNIC OF OPERATION

INTERNAL POPLITEAL NERVE (for heel cord contraction)

Incision is made beginning at the middle of the popliteal space, straight downward three inches. Avoiding the external saphenous vein

and nerve which are superficial, the main trunk is readily found. The branches to the gastrocnemius are first in view and easily separated. If clubfoot is present the nerve to the tibialis posticus is found by following down the main nerve between the muscles and testing by battery. The writers have usually excised one inch of each of the two branches to the gastrocnemius, sometimes adding one half of the branch to the tibialis posticus where there is a clubfoot tendency. Division of the entire branch to the tibialis posticus may cause a flatfoot. Removal of one to one and a half inches of the nerve branch is surer than a simple division. Some prefer to paralyze the soleus instead of the gastrocnemius, to avoid the possibility of the development of backknee. A slight plaster cast with the foot in normal position is applied for three weeks.

OBTURATOR NERVE

(for adductor contraction)

Incision from near the pubic spine along the inner side of the adductor longus. The anterior branches of the nerve are easily found by dividing this muscle and retracting. If the muscle is not divided it is more difficult to find the nerves. Generally three small branches, surrounded by a plexus of veins, lie at the bottom of the wound. In a very severe case, it is best to follow the branches back close to their exit to find and cut the deep motor branches. As a rule section of the superficial branches suffices. A double plaster spica to place the thighs in abduction is applied for a short time.

SCIATIC NERVE

(for flexion of knees)

Incision from the gluteal fold in the midline of the thigh, downwards for four inches. The long head of the biceps muscle is retracted inwards, after which the motor branches to the long head of the biceps, and to the semimembranosus and semitendinosus are found. Usually the branches to the semitendinosus and the short head of the biceps are left untouched.

MEDIAN NERVE

(for pronation of the hand and flexion of the wrist and fingers)

Incision from the inner edge of the biceps tendon down the center of the forearm across the pronator. The nerve is found readily at the bend of the elbow and by cutting the pronator radii teres, the nerve can be traced a good distance. On the anterior aspect are the branches to the pronator, the flexor carpi radialis, and

* Read at a meeting of the Interurban Club, Buffalo, N. Y., October 21st, 1925, with demonstration of cases.

the palmaris longus. Back of the nerve can be found the branch to the flexor sublimis as a rule, and it may be desirable to cut this partially or entirely, leaving the profundus untouched.

The ulnar nerve can be attacked to reach the flexor carpi ulnaris and thumb muscles.

Remarks

Tenotomy is best reserved for cases of real contracture, that is, in cases in which, under an anesthetic, there is found a real shortening which is not spastic. In one case the writers had to divide the pectoralis major and the biceps in the arm for contracture of shoulder and elbow. In some cases Soutter's operation on the hip muscles must be added for hip flexion. The Stoffel operation is supposed to be of no value in diffuse spasm where all the muscles are equally overactive. It can be seen that care must be used in selecting the cases. Also, when the mentality is of low grade, these young patients will not follow up the after treatment by voluntary exercises as they should. These posture exer-

cises are of great value. In adult cases of hemiplegia, the after treatment can be well carried out. As in infantile paralysis, these patients are poor operative risks, and acidosis and other consequences of the anesthetic must be watched for. Gas and oxygen form the best anesthetic by far. In cutting the branches excision of an inch or more is the rule. As these branches are motor only no pain is felt after operation. Pain is due to rough handling of the main trunk which contains sensory fibres.

In conclusion it may be stated that in the opinion of many surgeons the results are best in the obturator cases and least in the median cases. The experience of the writers would bear out this statement. Spastic paralysis is a difficult condition to treat. Forster's section of nerve roots injection of alcohol into nerves and tenotomy, leave much to be desired. In the Stoffel operation we have a new method of weakening the stronger set of contracting muscles and thereby giving the opposing group a better chance to function.

Case	Date of Operation	Initial	Age	Type	Deformity	Nerve	Result
1	1922	E M	6	Hemiplegia	Tight heel cord	Internal popliteal	Good
2	1922	V Y	13	Paraplegia	Abductor contraction	Obturator	Fair
3	1922	A.S	6	Paraplegia	Abductor contraction	Obturator	Died
4	1923	A D	10	Paraplegia	Tight heel cord	Internal popliteal	Good
5	1923	M N	13	Hemiplegia	Tight heel cord	Internal popliteal	Poor
6	1923	W L	8	Paraplegia	Double club foot	Internal popliteal	Poor
7	1923	A.K.	11	Paraplegia	Flexion of knees	Sciatic	Poor
8	1923	L S	8	Hemiplegia	Tight heel cord	Popliteal	Fair
9	1923	E W	17	Hemiplegia	Pronation of forearm	Median	Good
10	1923	E J	12	Paraplegia	Pronation of forearm and tight heel cords	Popliteal and Median	Fair
11	1923	B B	7	Paraplegia	Abductor contraction	Obturator	Good
12	1923	H C	12	Hemiplegia	Pronation of forearm	Median	Fair
13	1923	S E.	10	Paraplegia	Abductor contraction	Obturator	Good
14	1923	H V D	6	Paraplegia	Tight heel cord	Popliteal	Good
15	1924	E E.	12	Paraplegia	Abductor contraction	Obturator	Good
16	1924	M F	10	Paraplegia	Right club foot	Popliteal	Good
17	1924	N J	14	Paraplegia	Pronation of both forearms	Medians double	Good

THE TREATMENT OF SCARLET FEVER

By PERRY A. BLY, M.D.,

ROCHESTER, N. Y.

BEFORE we can institute a rational therapy, we must ask ourselves, "What is Scarlet Fever?" The knowledge that certain strains of Hemolytic Streptococci are the causative factors, and that specific anti-bodies are produced which may be available in the treatment of Scarlet Fever, has transferred our therapy from the realm of the empiric and symptomatic to that of the exact and specific.

Zingher¹ defines Scarlet Fever as "A local disease of the naso-pharyngeal mucus membrane, caused by certain specific strains of the Hemolytic Streptococcus. A soluble toxin is produced locally, which is absorbed into the system of the patient, giving rise to the skin and constitutional symptoms. Further, it may be said to be a combined toxic and bacterial invasion. We can neutralize the toxin, but immunity to the disease is antitoxic and not anti-bacterial. Hence, the protection, conferred by a previous attack of Scarlet Fever, while the individual has no bacterial immunity.

In 1912, Reiss and Jungman² published the results of their investigations on the use of convalescent Scarlet Fever serum. They pointed out the rapid disappearance of the toxæmic symptoms, and recommended its use in severe Scarlet Fever.

In 1915, Zingher advocated the use of whole convalescent blood, and, also, the employment of whole normal blood.³ He recommended convalescent blood in the so-called "toxic" types, and used normal whole blood in the secondary septic complications, largely for its tonic effect.

Following his technique, we began to use citrated convalescent blood in 1915. Our results were most gratifying. In a hospital for contagious diseases, it was comparatively easy to obtain suitable donors. The blood was drawn at the end of the fourth week of illness, and sometimes as late as the eighth or, even tenth week after the beginning of the illness. Of course, a blood Wasserman had been done.

The blood was drawn into syringes of fifty, and one hundred cubic centimeters capacity, in which two per cent of a ten per cent solution of sodium citrate had previously been placed. As

each syringe was filled, it was detached from the needle, and the contents were thoroughly mixed. A platinum needle, about No. 18 gauge was used. The blood was, now, injected directly into the thighs, buttocks, lumbar muscles and triceps. In this way, chance of contamination was reduced to a minimum.

Later, we substituted pooled, blood serum, which was first tested for sterility, preserved with 3% of tricresol, and put up in twenty cubic centimeter portions. The average amount of whole blood injected was 150 cubic centimeters, while twenty cubic centimeters of blood serum constituted the average injection.

Following the injection of blood or serum, the patient usually sleeps for several hours, and awakes, greatly improved. The stuporous child is alert, delirium has disappeared, the pulse is of better quality, and liquids are readily taken. This is more remarkable, when it is remembered that most of these patients have extensive faucial involvement, and that the dysphagia must be most distressing.

Early in 1924, we began the use of Dochez Serum. Birkhaug⁴ in comparing convalescent serum with Dochez serum says that while both sera appear to contain specific antitoxic anti-bodies, which produced definite clinical results, there existed a difference between the effect of the two sera in bringing about a cure. While convalescent serum caused a rapid diminution of the manifestations of the toxæmia, it did not apparently hasten convalescence or affect the duration of the exanthem.

It will be noticed that in all cases there was a rapid decline in temperature and improvement in the general condition. In the use of whole blood, there was usually a temporary rise, followed by a marked decline. In only one case was the injection repeated. Convalescent serum was given four times to one patient. Improvement was noticed after each injection.

Concerning the Schulz-Carlton extinction phenomenon, or so-called "blanching test," Dochez' serum caused a more uniform blanching, and over a larger area. Blanching was obtained with smaller amounts of Dochez' serum than with convalescent serum. Definite blanching was obtained with 1 cc Dochez' serum in four cases.

¹ Read at the Annual Meeting of the Seventh District Branch of the Medical Society of the State of New York, Auburn September 24, 1925.

TABLE I
CONVALESCENT WHOLE BLOOD

Sex	Age	Day of illness	Type	Eruption	Fauces	Temperature Before	Temperature After	Amount given	Remarks
F	26	5	Toxic	Bright scarlet	Congested	104.8	100.4	200 cc	Puerperium, marked improvement in 12 hours
M	5	5	Toxic	Dark purple	Exudate	105	102	150 cc	Very toxic, delirious, Cheyne-Stokes respiration, cervical abscess on 12th day
F	7	2	Toxic	Bright scarlet	Exudate	99.4	next day	200 cc	Recovery
F	37	5	Toxic	Scarlet	Congested	104.6	99.2	200 cc	Very toxic, delirious
F	6	6	Toxic	Dusky red	Congested	101.4	98.6	110 cc	No complications
M	4	9	Toxic	Purple	Exudate	104	102.4	250 cc	Uneventful recovery
M	5	5	Toxic	Bright scarlet	Congested	99.2	next day	110 cc	Condition poor, pulse 140, poor
F	21	4	Very toxic	Bright scarlet	Exudate	102.6	99.6	110 cc	Uneventful recovery
F	8	8	Very toxic	Purple	Exudate	105	99.2	150 cc	Condition very poor, nephritis
F	8	4	Toxic septic	Purple	Exudate	104.2	100.2	250 cc	Death on 12th day
M	2	6	Toxic	Fading Purple	Exudate	105.2	100.2	200 cc	Recovery
M	21	5	Toxic	Purple	Exudate	104.8	100	160 cc	Puerperium, confined 5 days before, delirious, condition poor
						102.6	99	400 cc	eventful recovery
									Moribund on admission, hemolytic streptococcus septicaemia. Died 22 hours after admission.
									Hemolytic streptococcus septicaemia, septic arthritis elbow, hemolytic streptococcus in joint
									Died.
									Uneventful recovery
									Manacal, slept 12 hours after blood, otitis media on 15th day
									Uneventful recovery

TABLE II
CONVALESCENT BLOOD SERUM

Sex	Age	Day of illness	Type	Eruption	Fauces	Temperature Before	Temperature After	Amount given	Remarks
F	5	10	Toxic	Fading	Exudate	102.4	99.2	20 cc	Very toxic. Uneventful recovery
F	9	13	Toxic	Fading	Exudate	101.2	99	10 cc	Uneventful recovery
F	2	12	Toxic	Faded	Non exudate	103.6	98.4	20 cc	Profuse nasal discharge ceased on 4th day
M	22	5	Very toxic	Intense scarlet	Exudate	on 2nd day		20 cc	Recovered.
		7	Very toxic	Intense scarlet	Exudate	105.8	102.6	20 cc	Delirious, pulse poor
		8	Less toxic	Fading	Exudate	103.6	101	20 cc	Quiet after first injection, later delirium.
M	12	4	Less toxic	Faded	Non exudate	102.8	100	20 cc	Slept 6 hours, pulse poor, delirium returned, pulse much better quality
M	9	2	Toxic	Moderate	Clean	101.2	99	20 cc	Uneventful recovery
M	12	5	Moderately toxic	Intense	Clean	104.2	99	20 cc	Wassermann No 4
M	2	10	Septic	Faded	Clean	104.6	99.4	20 cc	Active delirium, albumuria on 12th day
F	46	6	Toxic	Moderate	Clean	on 2nd day		20 cc	Recovery
F	13	5	Moderately toxic	Moderate	Exudate	103	98.4	20 cc	Slight edema of larynx, delirium
						on 2nd day		20 cc	Recovery
						103.6	100	20 cc	Slough on eyelid, hemolyt, strep recovered, later, otitis media and mastoiditis. Recovered.
								20 cc	Otitis media, cellulitis of cheek, hemolytic strep in abscess of cheek
								20 cc	Recovered
								20 cc	Uneventful recovery
								20 cc	Uneventful recovery

TABLE III
DOCHEZ' SERUM

Sex	Age	Day of illness	Type	Eruption	Fauces	Temperature Before	Amount given	Remarks
F	17	2	Moderately toxic	Moderate	Clean	103.4	99.2	Temperature normal 24 hours after
M	18	4	Moderately toxic	Brilliant scarlet	Exudate	104.8	99.4	Otitis media on 9th days
F	21	2	Moderately toxic	Moderate	Exudate	101.4	98.6	Recovery
M	10	2	Mild	Moderate	Exudate	103	98.6	Uneventful recovery
M	6	2	Mild	Moderate	Congested	102.6	99	Uneventful recovery
M	18	3	Moderately toxic	Moderate	Exudate	104.4	99.4	Uneventful recovery
M	10	2	Mild	Moderate	Congested	103.4	99	Uneventful recovery
M	22	3	Mild	Brilliant scarlet	Exudate	103	99	Uneventful recovery
M	20	4	Moderately toxic	Fading	Exudate	104.2	98.6	Uneventful recovery
F	48	6	Toxic	Brilliant scarlet	Exudate	103	98	Uneventful recovery
M	18	3	Mild	Brilliant scarlet	Exudate	102.8	99	Uneventful recovery
M	23	12	Toxic	Fading	Congested	104.3	101	Treated at home until 12th day, beginning edema of larynx, symmetrical subperiosteal abscesses over tibiae, hemolytic strep, found in both
						98.6	in three days	Recovered

To summarize these lists

12 patients received convalescent whole blood, mortality, 25% Of these, eight were in desperate condition Two of the fatal cases showed Hemolytic Streptococci in the blood culture, while acute nephritis caused the third death

10 patients received convalescent blood serum, all recovered

12 patients received Dochez' Serum All recovered Dochez' Serum appeared to bring about a more rapid improvement in the symptoms of the toxæmia, and particularly, an earlier disappearance of the exanthem

Our non-specific routine treatment is simple, but some of our procedures are difficult to carry out in a private home Every patient is kept in bed at least twenty-one days, counting from the first day of illness In the absence of renal involvement, the drinking of generous amounts of water is urged We cannot force water through an impermeable kidney, and I cannot see the wisdom of forcing liquid into a patient whose tissues are beginning to be water-logged Nephritis has been our least frequent complication

However, we do believe in frequent washing out of the lower bowel with normal saline solution When the angina is severe, the necessary amount of water may be introduced in this way

Believing that attention to the throat and naso-pharynx decreases the incidence of middle ear involvement, we very gently flush out the naso-pharynx, and then the fauces are painted with a 20 per cent solution of Argyrol All this is done six or eight times in the twenty-four hours

In 1,133 cases of Scarlet Fever, treated at the Rochester Municipal Hospital, Otitis Media occurred in 7.95% Frequent examination of the ears is made, and a tympanum which is only moderately bulging, is promptly incised The treatment of a discharging ear consists in keeping it as dry as possible This means a great deal of time and labor, but, it pays A moderate rise in temperature, after the initial fever has subsided, is a warning to look at the ears, even though the patient does not complain of pain or tinnitus

Nephritis was a complication in 1.63% of cases A small number I believe the routine twenty-one days in bed, the abundant amount of water, and restriction of the diet to semi-solids during the febrile period, furnish the reason

A rather painful complication is arthritis This is relatively common The smaller joints are most frequently attacked, and it is usually symmetrical The temperature rises to 102 or 103 degrees, and the patient complains of pain in the joint The joint is immobilized, and the pain and fever rarely last more than a few days

In only two cases, did suppuration occur. In both cases the Hemolytic Streptococcus was found in the joint, and both terminated fatally.

Two deaths were caused by a Hemolytic Streptococcus meningitis. Edema of the larynx is a rare, but serious complication. Three of our cases required intubation, and all recovered.

In the absence of complications, our patients are discharged on the thirtieth day. Why the thirtieth, and not the twenty-ninth, or the fifty-ninth? If we accept, as we surely do, the Hemolytic Streptococcus, or rather, several specific strains thereof, as the cause of Scarlet Fever, can we not prophesy that the discharge of the patient will depend upon negative cultures, made from the nose, ears, throat and naso-pharynx?

And what about the nephritides of early adult

life? I believe that the foundations for some of these were laid at the time of an early, perhaps forgotten, perhaps unrecognized Scarlet Fever.

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INFLUENZA AND MEASLES, THEIR EPIDEMIOLOGIC SIMILARITY

By EDWARD S GODFREY, Jr, M D,

Director Division of Communicable Diseases New York State Department of Health

NINETEEN HUNDRED AND TWENTY-SIX will be a "measles year" in New York State unless the record of twenty-two years is to be broken. Not since 1903 have there been three successive years of declining mortality from measles, so that the fact that the rate in 1924 was lower than in 1923, and that it was lower in 1925 than 1924, make it almost certain that 1926 will see a considerable increase. If the number of deaths from this cause is to be kept below 300, a good deal more intelligent effort will have to be given to the problem than has been the custom during "measles years" of the past.

From the administrative standpoint measles epidemics should be regarded as influenza epidemics in miniature. While there are differences in the symptoms of the two diseases and even to some extent in the character of the epidemics themselves, yet the latter present sufficient points of similarity to warrant the above statement. It is customary to learn how to handle a big job by first learning how to handle little ones with more or less facility. Health authorities therefore should be making use of the measles epidemics that come their way to devise ways and means of minimizing their effects and to obtain practice in mobilizing available resources for emergencies.

Epidemics of measles resemble influenza epidemics in several ways, and the differences, aside from the inherent characteristics of the diseases themselves, are largely due to the difference in the intervals between the epidemics. Widespread epidemics or pandemics of influenza usually appear about once in a generation. Measles epidemics occur in large cities about every two or three years, in smaller places at somewhat longer intervals.

If measles epidemics appeared only at intervals of twenty or thirty years, we would observe much the same disruption of social and economic life that is common to epidemics of influenza, since practically everybody who has not had measles is susceptible to it, and under such circumstances it would not be a disease confined mainly to childhood as it is today, but would attack adults, particularly young adults as well. This has been proven time and again by the occurrence of measles epidemics in isolated communities where the disease has been introduced for the first time or after a long interval.

We have but to read Panum's account of the epidemic of 1846 on the Faroe Islands, where for sixty-five years there had not been a case of the disease. Six thousand out of the 7,800 people in these islands contracted the disease in the space of a few months. The person who had had measles sixty-five years or more previously escaped, while old persons, even of seventy and eighty years, who had never had measles contracted it as readily as the child of seven. In one small village, 80 per cent of the inhabitants were sick at the same time.

Unfortunately, we know nothing of the mortality in this epidemic, since Panum fails altogether to mention it. That none of these cases died is incredible. That only a small number died is improbable, since we are told that the disease was greatly dreaded by the inhabitants. There is no doubt about the mortality in the Fiji Islands epidemic, however, since here nearly a fourth of the population died from measles in a period of four and a half months. Even the "black death" of the fourteenth century is hard pressed by this record. Did they die because of "inherent lack of resistance"? Because their forebears had never had the disease and

they did not inherit an ability to withstand its effects? It is pure assumption to answer these questions in the affirmative in view of the testimony of the physician who tried to look after them. He says it was because so many were taken sick at one time that they couldn't be cared for, couldn't even be fed, so that in addition to the indiscretions which resulted from the lack of medical and nursing care, actual starvation helped bring about this frightful mortality.

In epidemics of both diseases in the average civilized community, while many people are attacked, comparatively few of those attacked die. The actual fatality rate is probably not more than one out of every two hundred. On the other hand, so many are attacked that the gross number of deaths from either disease during an epidemic may exceed the deaths from all other communicable diseases combined, and in the case of influenza may exceed those from all other causes.

Neither disease is apt to kill directly, but both stand preeminent in preparing the way for pneumonia and other complications which are very apt to result fatally. Both are more or less discriminating in whom they kill. They usually select those at the extremes of life—the very young and the old, and those in between who are physically unfit. That the influenza epidemic of 1918 killed more in the "prime of life" and more males than females does not alter this general statement. Men and women in the prime of life can become temporarily "unfit" by undue fatigue, by trying to "see it through" and not "give up" when the attack comes on.

In both diseases the epidemics are commonly explosive, that is, a great many people are attacked within a comparatively short space of time. After a week or two, or perhaps more, of a gradual increase in the number of cases reported, there is a sudden flare-up and the number of cases each week may be double the number for the previous week. This may continue for two or three weeks, when the *rate* of ascent begins to slow down, followed by a period of slight rises and falls and then by a decline, which, however, is never as rapid as the rise. This characteristic explosiveness is due to the presence of two factors: first, the disease itself, second, a large percentage of susceptibles in the community. At the beginning of the epidemic the ratio of cases, the sources of infection, to susceptibles is low and every case is likely to start two or three more and on the average probably does. During the height of the outbreak each case comes in contact with so many immunes that if it were not for the large number of sources of infection at that stage the epidemic would shortly stop. As it is a point is soon reached where, despite the numerous sources of infection, the immunes are so numerous that it takes two cases on the average to find one susceptible, and then the daily

or weekly increase in cases stops and a temporary equilibrium is established. At a point further on the epidemic begins to decline and ultimately reaches a point where it either stops altogether or continues at its "normal" or usual rate for that community.

Epidemics of influenza are commonly more explosive than measles—that is, they rise more suddenly, more persons are attacked per diem, and they fall more rapidly than measles epidemics do. This may be due entirely to the greater concentration of susceptibles to influenza, although the longer incubation period of measles may have something to do with it. This greater concentration of susceptibles for influenza is due, as already stated, simply to the less frequent recurrence of influenza epidemics. One attack of measles nearly always protects against a future attack, and this may be true, to some extent at least, of influenza. However, as measles epidemics recur at short intervals, nine out of ten adults living in the more densely populated states are immune to measles, whereas no such proportion of them are immune to influenza, except possibly during the first few years after an epidemic.

By reason of the explosiveness of influenza epidemics and also because a large number of adults are attacked, there is disruption of business and social affairs and an appreciation of the need of unusual activity by the health authorities. Although there is little that they can do to stop the epidemic, there is no hesitation about providing funds and volunteer assistance is to be had in abundance. The calamitous nature of the event is apparent, the need for relief is recognized, and everybody is glad to help.

Not so with measles. Here is no horrid demon such as we have never seen before, but a familiar pest who shows up every few years to disrupt the routine of the home and school, and here and there pilfer the life of a child—usually one not yet three years old. Does the health officer ask for more nurses, more doctors, more money? He would be laughed at if he did. Does he close up his children's clinics, slow down on his inspections, withdraw his staff from all but the absolutely necessary work that *must* be done, and set them to work at preventing deaths from measles? He wouldn't dare. The fact that more lives may be lost from measles in one month than his child welfare clinic can save in six is not realized by his public. They would probably be severely shocked by anyone of such proposals, and on the other hand remain perfectly contented if he gets up a reasonable number of placards and leaves the result with the Lord.

This ought to be changed. Aside from the direct benefit to be gained by preventing measles deaths as the result of prompt, adequate investigation, there are collateral benefits which make it well worth while. Measles is the typical

epidemic disease spread by human contact, and as such is or should be a valuable basis for comparison for all other diseases—those suspected of being spread in the same way and those suspected of being spread in different ways—whooping cough, poliomyelitis or dysentery. But up to this very moment no one knows precisely what its behavior is in communal life, because all of our data are based on samples. There never yet has been an epidemic where every case was reported to the health authorities, and there will not be until every one knows that if it isn't reported it will be found out anyway with the possibility of a fine in the bargain. Consequently, when we say that fifteen per cent of the cases occur under three years of age, we really only mean fifteen per cent of the sample. When we say that out of every twelve children who contract measles before they are a year old one dies, we mean one out of twelve of the sample. If we say it is more fatal in the city than in the country, more fatal in the country than in the village, we are only talking about samples, and the samples are probably not equally good.

It takes a lot of work by a lot of people to keep up with a measles epidemic during the few weeks it is at its height. Finding the cases that need a doctor, the ones that should go to the hospital, the babies that have been exposed and that should be given serum or some of their

fathers' blood to protect them, the collection of facts, the relief of the overtaxed mother penned up with her brood in a few small rooms, providing nursing care—all of those things should go into the management of a measles epidemic just as much as an influenza epidemic.

Furthermore, it is good practice. Because of the long intervals which separate influenza epidemics, such epidemic has to be dealt with by persons who have grown up since the last outbreak and are therefore lacking in the actual experience which was then gained by those participating in it. There is the same lost motion, there are the same mistakes, the same overwork and underwork that characterized the management the last time. No one knows his place in line, the commanding officer is new to this kind of a job. Instead of an orderly advance, a cheering mob rushes forward to get in its own way as well as the enemy's.

Nineteen hundred and twenty-six will be a "measles year" in New York State. The advance has already shown itself in Beacon, Plattsburg, Oswego and Yonkers. In the latter city, over 2,000 cases of measles were reported during the closing months of 1925, and the toll of deaths from this cause has thus far amounted to forty—all but two of them *under three years of age*.

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ANNUAL REGISTRATION

Life in New York State and all other civilized communities is assuming an increasing complexity, and the limits of one's dependence are those of communications and transportation. The doctor is deeply affected by this complexity. A hundred years ago the influence of the physicians was confined to the community within the little radius which he could cover with a horse. He practiced within that radius, and he drew all his supplies from that restricted territory. He met few strangers, and knew everybody in it just as they knew him. Matters of registration and identification bothered neither him nor his families.

All this is changed by modern conditions of

living. First, the railroad enlarged the doctor's circle of contact with people, and then the telephone and finally the automobile stretched the radius of his practice to ten fold its former distance until he could not know more than 10 per cent of the people in his community. If he lived in a city, he probably knew less than one per cent of the people within walking distance of his office. There was no ready means of identifying him or of ascertaining his qualifications to practice, and so there arose a necessity for his public registration and identification.

All doctors agree that an authoritative list of medical practitioners is a necessity, and that such a list is not available at present. The sixteen

epidemic disease spread by human contact, and as such is or should be a valuable basis for comparison for all other diseases—those suspected of being spread in the same way and those suspected of being spread in different ways—whooping cough, poliomyelitis or dysentery. But up to this very moment no one knows precisely what its behavior is in communal life, because all of our data are based on samples. There never yet has been an epidemic where every case was reported to the health authorities, and there will not be until every one knows that if it isn't reported it will be found out anyway with the possibility of a fine in the bargain. Consequently, when we say that fifteen per cent of the cases occur under three years of age, we really only mean fifteen per cent of the sample. When we say that out of every twelve children who contract measles before they are a year old one dies, we mean one out of twelve of the sample. If we say it is more fatal in the city than in the country, more fatal in the country than in the village, we are only talking about samples, and the samples are probably not equally good.

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ILLEGAL PRESCRIPTIONS

The physicians of New York State regret that any of their number should be accused of signing blank prescription forms and selling them to druggists to be filled out for the purchase of alcoholic liquors. The daily papers of New York City have printed the names of several physicians and druggists who have been caught in a conspiracy for dispensing intoxicating liquors, and the printed statements are not denied. Physicians are therefore reluctantly compelled to admit a studied violation of the laws by a very few of their number for sordid gain.

Physicians are justly proud of the high standard of their code of ethics. A violation of the confidence reposed in them occurs so seldom that their honesty is presumed and wilful violations of the standards of common behavior are entirely unexpected.

A prescription on file in a drug store is *prima facie* evidence that the physician who wrote it was treating a sick person for whom it was written. It is placed on file by the druggist for his own protection, and is a semi-public document which is open to the inspection of authorized state officials. A prescription for a narcotic or an alcoholic liquor is evidence that the person for whom it is intended is sick, and that the physician who wrote the order is actually treating the patient according to the scientific standards of modern medicine. Giving an alcoholic liquor to be used for any other purpose constitutes perjury and lying, and these are mortal sins according to the standards of the Medical Society of the State of New York.

NAMES FOR NEW CULTS

When a new system of unscientific healing is devised, the most difficult part of the invention is the construction of a trade name which will catch the public ear. A system without a label is no system at all, for the principles of the cultists are all taken from the great reservoir of human credulity, and the main difference between them is in their tags.

The Commissioner of Health of New York City issued a list of the cult systems which were printed in New York City (see this JOURNAL, February 22, 1924, page 230). It contained fifty-five varieties of healing, and was by no means complete at the time it was issued, and is decidedly out of date at the present time, for a new system is born about once a month.

The chiropodists who formerly contented themselves with nails and corns are now seeking to dignify their trade by demanding a license to call themselves "doctors of podiatry." The term "Chiropodist" has become too old fashioned, and so they have coined a new word to give themselves appearance of progress and modernness.

The word "chiropodist" comes from two Greek words—*cheir*, hand, and *pous*, foot. Literally a chiropodist is a hand-footer, and his principle work was to take care of nails on the hands and corns on the feet.

Then came the manicurist—a word from the Latin, *manus*, hand and *cura*, cure—and stole the work of caring for the nails. She did her work openly in barber shops and beauty parlors. Every stage of her work was open to the plain view of the patron and any one else who cared to see, and there was no opportunity to develop mystery in her methods or results. But the corn doctors could still work in secret and could make extravagant claims without detection. They therefore took the half of the word "chi-

ropodist," which the manicurists had forsaken, and called themselves podiatrists, and then because social custom is to conceal the feet, they ascribed to themselves a mysteriousness which is the essential basis of every new system of healing. Podiatrists are manicurists of the feet, and if they are granted the title of "doctor," we may also expect in a short time to have to address every barbershop manicurist as "Miss Doctor."

The makers of braces and trusses have gradually arrogated to themselves the title of "orthopedists," under the mistaken notion that the word means straight feet. The first half of the word, *orthos*, is Greek, and means straight. The second half is not the Latin root, *ped*, meaning foot, but is the Greek root, *paid*, meaning child. An orthopedist is one who straightens the bodies and limbs of children, and until recently the word was written "orthopaedist" in order to indicate its origin from *paid*, child.

The brace makers were too dependent on the medical profession to run the risk of their ill will by assuming the title of orthopedists, and so they looked around for another descriptive term and found it in the word "bandagist," which they claim is much used in Europe. It would seem that a strong objection to the word is that it is commonplace, but evidently the brace makers think they can invest it with sufficient mysteriousness to make it a profitable trademark.

Oralogy is a new system that has ostensibly sprung up within the ranks of the medical and dental professions, and has reached the lusty stage of being the subject of proposed special legislation. Senate Bill Introductory 782 is designed to recognize a group called "oralogists." The word "oralogy" is probably derived from the Latin root *or*, meaning mouth, as in the expression "oral surgery." But the bill says nothing

thousand doctors of New York State constitute an enrolled army whose members are scattered throughout the State. Most of them maintain offices, and are on active duty. Some retain a degree of interest in medical affairs, but are attached to organizations of a commercial, financial, or social nature, and some who were formerly active are conducting private businesses, or are entirely retired from practice.

How shall the State obtain a list of the doctors who are practicing medicine within the meaning of the law? There are two methods.

First, the State may send out its inspectors who shall canvas every street, make inquiries regarding every doctor's sign that they see, look through every telephone book, and obtain a list as complete as possible. Such a list will never be complete, and no court would accept it as final evidence as to those whose names it does not carry.

The second method of obtaining a list of those who are qualified to practice medicine is to require every physician to register his name, address, and qualifications. The physician must do that once under the present law, and must pay a large fee for such registration. The proposed Practice of Medicine Law would require him to

make an annual declaration of his address and intention to continue to practice medicine. Those who do not care to continue to practice medicine will not register, and the lists will be up-to-date and will contain only "live" names.

It is entirely right and sensible that the State should require every person to whom it grants a special privilege should make a formal statement once a year whether or not he wishes that privilege renewed, or wishes to continue to exercise it.

Every man is subjected to several enrollments and these are increasing in number with the increasing complexity of modern life. He must enroll in order to vote, his name is on the local tax lists, and if he is fortunate, he is recorded in Albany and Washington as a substantial contributor to the public income. He enrolls as the proud owner of a Lincoln Junior, or a Packard car, and triumphantly displays his operator's license to the upholder of the majesty of the law at a street corner.

The enrollment of which a doctor should be the most proud is that which lists him with his sixteen thousand colleagues who alone of all the ten million people of New York State, have the privilege and satisfaction of ministering to the sick.

MOVING PICTURES IN MEDICAL TEACHING

It has been the editorial policy of this JOURNAL that every criticism shall include a constructive phase. If a course of action is condemned, a constructive plan should be suggested in its place. Every plan of action that is seriously put forth by conscientious physicians is worthy of respectful consideration, even though its main features are impractical.

Some subjects are so broad and so many sided that any editorial discussion is likely to be incomplete. Such a topic is that concerning the teaching value of moving pictures in the Daily Press Department of this JOURNAL, on page 290 of the March 15th issue. That article should have concluded with an appreciation of moving pictures in medical teaching.

Moving pictures have an essential place in visualizing medical facts. Language is a cumbersome medium for conveying mental pictures of unfamiliar objects. A still photograph is exceedingly valuable, but if the picture is "animated," it gives an instant conception of relations, of speed of motion, of growth, and of other characteristics whose descriptions require long complex sentences. As examples of subjects in which moving pictures are of almost essential value are the following:

The effects of experimental thyroectomy on sheep as done in the Veterinary College of Cornell University are shown in a vivid manner by the use of moving pictures of the flock of sheep

containing both normal and thyroectomized animals.

These pictures have been shown to several groups of medical men, the District Branches of the Medical Society of the State of New York, and in County Societies, and they visualize the weakness and sluggishness of the operated animal.

The peristalsis of the human stomach may be shown by a few moments of animated X-ray pictures more vividly and effectively than by an hour's verbal description.

While a series of X-ray photographs show successive phases of the changing shape of the stomach, the peristalsis becomes vivid only when the successive pictures are connected and animated.

A pathological specimen may be turned about and rotated, and the relation of its parts shown clearly and vividly in an animated photograph.

Many pathological conditions in which the parts may be exposed may be demonstrated and operations shown by the use of moving pictures.

The value of moving pictures in certain phases of medical teaching is recognized by the American Medical Association in providing a large hall in which a succession of pictorial lectures with moving pictures and lantern slides are given throughout every day of the convention.



MEDICAL PROGRESS



The Etiology of Peptic Ulcer—Konjetzny opposes the teaching that peptic ulcer develops on an intact gastric and duodenal mucosa and advocates the view that it invariably forms on a basis of gastritis or duodenitis, which may be focal or diffuse. This inflammation is always most pronounced at the antrum and bulb of the duodenum, or in other words in the realm of the pyloric glands, and while it may often extend into the contiguous area of the fundus it is rarely found in the fundal mucosa apart from this location. In gastric ulcer, further, we usually find the duodenum also inflamed. This inflamed mucosa, gastric and duodenal alike, is the seat of multiple defects, both oval and linear, which are known as erosions and which pass into the ordinary superficial ulcer, all transitions being seen. The author has never seen the slightest evidence of local anemic necrosis or of vascular obstructions under the microscope, which reveals nothing beyond the most typical inflammatory changes, the erosions and ulcers being of purely inflammatory origin. He goes only so far as to state that inflammation is responsible for the superficial ulcer and not for the chronic and indurated formation which requires the presence of another casual factor. In regard to the cause of the gastritis and duodenitis we can only infer that this is an infection, for we know that the microorganisms of typhoid and dysentery can set up ulceration in the alimentary canal. As for the cause of the spread of the ulcer and its chronicity and induration, pathologists and clinicians are practically unanimous that it is the digestive action of the gastric juice, but the author himself seems to be unconvinced although no alternative is mentioned save a possible nervous factor which somehow withdraws protection from the mucosa and allows it to be attacked by the juice.

Bárony takes a view which is exactly opposed to this inflammatory theory of Konjetzny. He adheres positively to the trophic or necrotic theory, which would make of peptic ulcer an analogue of Raynaud's gangrene, varicose ulcer, the ulcers of colitis ulcerosa, and the ulcer of prolapsed uterus. Although the ulcer is a sharply marked off local process this does not mean that there is no underlying general cause. Just as Raynaud's disease may exceptionally attack tissues other than the digits, such as the tips of the nose and ears, so conceivably there might be remote manifestations in peptic ulcer if an exciting cause were forthcoming. In peptic ulcer it is the gastric juice which furnishes a unique factor, but the author is not convinced that

superacidity is a necessary factor and believes that this view is now exploded. In a paper immediately succeeding Bárony's contribution Boas calls attention especially to the superacid theory. It is a mistake, he says, to affirm that the pioneer gastrologists attached overmuch importance to this, and he quotes from Riegel to show that hyperchlorhydria was not regarded as an essential causal factor. To mean anything, the influence of acidity must be studied at the outset, in the stage of erosion and superficial ulcerations and never after the ulcer has become chronic. Thus Kelling studied 150 cases of early ulcer and found superacidity in all but seven. Boas would look with great suspicion on the so-called "anacid ulcer" for it is precisely here that he would expect to find a non-peptic ulcer—tuberculous, luetic, etc.—*Archiv für Verdauungs-krankheiten*, December, 1925.

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about the mouth, but defines orology as follows "A person practices orology within the meaning of this act, who holds himself out as being able to prevent, diagnose, treat, or eliminate disease conditions" The list of subjects of examination ends with "spinal analysis"

A famous Frenchman once said that it was the duty of every educated man to coin three new words every year and add them to the dictionary. He should have been employed to coin new words as advertising trademarks for healers who are seeking special privileges

MEASLES

Measles is a public health problem which deserves the serious consideration of doctors. This JOURNAL, page 312, carries an article on the epidemiological similarity between measles and influenza. Both come in waves, and between the times of their peaks, little is done in preparation for the next wave which is sure to come.

Measles is by no means a "minor" disease. It has caused over 700 deaths annually in New York State during the last five years, and the mortality rate is not diminishing. Whooping cough, another so-called minor disease, also causes about 700 deaths annually, while scarlet fever and typhoid each cause only half that number of deaths, although each is rated as a "major" disease.

Analyzing the deaths from measles, the majority of them are found to occur in children of three years old and under. It is a dangerous disease in young children. The application of this fact is obvious. Protect the young children against infection. While it seems to be true that practically every child in New York State will

get the disease at some time during its life, yet the time of special danger is its early years. The State Department of Health has emphasized this fact again and again, and yet about the same number of children continue to die year after year.

The evident preventive measure is to protect young children from the disease. This is not so commonplace and self-evident as it may seem on first thought. A baby up to three years of age is under control. It does not wander over the streets, but it stays in its own house or yard under its mother's eye and control. It can readily be kept away from other children, and that is the essence of protection. After the age of three, a child is beyond control, but fortunately it is also beyond the danger age for measles.

If physicians advise parents to protect their young children from contact with all persons who have "colds," hundreds of lives will be saved every year. A great responsibility rests on physicians to protect children from measles while they are young.

LOOKING BACKWARD—THIS JOURNAL A QUARTER CENTURY AGO

This Journal for February, 1901, carried the following legislative note:

"No. 205 Senate, Introduced by Mr. Audett. An act to amend the Public Health Law, creating a State Department of Health and the office of Commissioner of Health, and abolishing the State Board of Health."

This law was passed promptly and the State Department of Health was organized along lines which twenty-five years of experience have amply justified. It is interesting to read an expression of fear printed in the April, 1901 issue of the Journal. The anonymous correspondent wrote: "Does our Legislative Committee know that a bill has been enacted destroying the Board of Health? I notice that at the hearing on the measure not a person appeared for or against it. To my mind this was one of the most flagrant instances of destructive legislation in the annals of the Society."

"Twenty years ago after a struggle of fifteen years, the medical profession secured the enactment of a measure creating a State Board of Health. For two decades that board has more or less completely fulfilled its mission though the appointing power has not always had due regard to the fitness of its members for responsible duties."

"By the recent act of the Legislature, instead of nine members who constituted the board there has been substituted a single person who shall have all the powers imposed on the State Board of Health. It is surprising that the framers of the bill concluded to change the name of the nondescript thing they were creating from a Board of Health to a Department of Health. But to the ordinary lawmaker the greatest task would have been to provide a person of such capacity that he could at the same moment, perform all of the duties of the nine select sanitarians of the old board, of all its committees, and even its secretary, in fact who could be a health department in himself. But when they drew the outlines of this extraordinary individual, he proved to be only an ordinary medical graduate."

"At a single stride out the State has passed from the highest to the lowest grade of sanitary organization and service without so much as a protest from a single member of the medical profession."

On this first day of April, 1926, this doleful prophecy is recalled as the State of New York is considering a Practice of Medicine Bill.

MEDICAL PROGRESS

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The Comparative Pathology of Gastric Ulcer—According to Hirsch all of the domestic animals are liable to suffer from gastric ulcer, and especially is it found in the rennet stomach of the young calf although apparently never so long as it is milk fed only. This affection has always been as much of a puzzle to veterinarians as it is to physicians, but a comparative study of human, animal, and experimental ulcer ought certainly to increase our present knowledge. It is evident, for example, that there are separate types of peptic ulcer. The duodenal ulcer may be regarded as one and is extremely rare among the animals. In the stomach the great incidence of ulcer in the so-called "thoroughfare" of the organ—the tract which beginning at the cardia traverses the lesser curvature to reach the pylorus and comprises the first portion of the duodenum—appears to show that thin ulcer has a different etiology or pathology from that of ulcer elsewhere in the organ, and there is reason to

believe further that ulcer on the near side of the pylorus has some special traits. It is often multiple and doubtless has a mechanical casual factor. When the calf passes from milk to coarse, rough fodder multiple ulcers often appear in the juxta-pyloric region. But while erosions readily form in stomachs and become full fledged ulcers these ought to heal and do unless other factors intervene. One of the beliefs of the hour is that spastic contraction of the stomach is a factor. Increased acidity induces such contractions but so might some central nervous influence. But it is also held that the erosion comes first and provokes contractions which shut it off in a measure from the acid contact. The possibility of a vicious circle in this connection is not to be lost sight of. In some gastric ulcers in animals the presence of circulatory disturbances—embolism, infarction, hemorrhage—seems to be an important factor while mechanical causes are lacking. It seems certain that such primary lesions also occur in man and that they are more or less vulnerable to the action of the gastric juice—*Medizinische Klinik*, January 2, 1926.

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tact that the operation is performed at a period in the life cycle of an acute ulcer when rapid regression and healing have obliterated the ulcer crater and made the lesion impossible of discernment

Functional Causes and Treatment of Epigastric Distress — Alexander McPhedran (*Canadian Medical Association Journal*, February 20, 1926, xvi, 2) states that the most frequent sufferers from epigastric distress are those of nervous temperament. The trouble is usually attributed to gastric acidity, but there may be a low acidity. The discomfort depends on the irritability of the gastric nerves, or rather of their centers in the spinal cord. Acidity depends on the pneumogastric nerve, which if irritated will cause excess secretion, and this in turn frequently excites the spinal centers and induces gastric spasm, as proved by the prompt relief afforded by bicarbonate of sodium, magnesia, or other antacid. Many cases are due to chronic focal diseases within the abdomen, especially of the gall-bladder, the appendix, and the stomach itself or the duodenum as in chronic ulcer. They all increase the irritability of the spinal and pneumogastric centers and cause marked gastric symptoms. It is, therefore, of first importance that a searching examination be made not only of the appendix and gall-bladder, but of the duodenum and stomach, resorting to the aid of x-ray examination. Eye strain is not a rare cause, and frequently there is consciousness of action of the heart, with irregularity, premature ventricular systoles being the most frequent. The author cites two cases which were associated with anginal attacks which were completely relieved following treatment of the gastroenteric system. Esophageal gastric spasm may also be excited by angina pectoris, as the irritability of the cardiac centers in the spinal cord may and usually does extend to the centers related to the esophagus and stomach. Treatment under all these circumstances calls for relief of the spasm. For that purpose about 15 grains or more of bicarbonate of sodium in half a pint of water, given an hour before each meal, lessens acidity and flushes out the stomach contents. The bowels require to be moved efficiently without purging, and the diet should be restricted. The aim is to reduce the stimulus to gastric secretion. Strontium bromide, tincture of belladonna and similar remedies may be added with benefit. In all cases the psychic condition should have careful attention. Assurance of recovery may of itself relieve the symptoms, as proved in one of the illustrative cases which the author cites.

Nonsurgical Duodenal Drainage — Rausch, assistant to Professor Koranyi of Budapest, writing on this subject in the *Klinische Wochenschrift* of January 29, 1926, points out that the

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STRYKER, Esq
the State of New York

THE CHIROPRACTOR

tion of the Charlatan

ome evidence, more or less cogent, of negligence which you may consider for what it is worth, along with all the other evidence in the case."

The Court of Appeals reversed the judgment of the trial court because of the instruction that the violation of the Public Health Law was "some evidence of negligence." A very strong dissent was written by Judge Crane. Thus, the reversal was based solely upon the charge of the trial court, and, therefore, did not involve the merits of the plaintiff's claim in any way.

This charge of the court, which was disproved, is of peculiar interest to the sponsors of the Medical Practice Act now pending before the legislature, inasmuch as the adoption of the proposed act would permit in future trials the charge on the jury which was condemned by the Court of Appeals. Subdivision 6 of Sec. 174 of the new Medical Practice Act provides:

"In any action for damages for personal injuries or death against a person not licensed hereunder for any act or acts constituting the practice of medicine as herein defined, when such act or acts were a competent producing proximate or contributing cause of such injuries or death, the fact that such person practiced medicine as herein defined without being duly licensed shall be deemed prima facie evidence of negligence."

Thus in future trials, where other dupes are beguiled into the clutches of the chiropractor and suffer as a result paralysis, broken bones, death or other injuries, they may establish a prima facie case by showing that they were injured by a chiropractor and that such chiropractor was not licensed to practice medicine. The new Medical Practice Act for this reason, among many others, is entitled to the support of every intelligent person in this State, to the active backing of the licensed medical practitioners, and to the fair consideration of the legislature.

Inasmuch as the sole question before the Court of Appeals in the Shyne case was the correctness of the trial judge's charge and there was not and could not be any dispute there as to the questions of fact, and both the prevailing and dissenting opinions are in accord that the chiropractor, in treating his patient, had committed a criminal offense, *to wit*, the crime of practicing medicine without a license, we shall discuss indiscriminately the statements of fact contained in both the prevailing and dissenting opinions.

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know what the disease is, is a contention which might have gained credence in the unenlightened mediaeval centuries, but that such a contention should be seriously put forth in this enlightened day, with all the slow and painful discoveries of bacteria and disease carefully evolved by scientists who are interested in mankind rather than their pocketbooks, is an insult to the intelligence of the people of this State and especially to the legislature, one of whose primary duties is the preservation and safeguarding of the public health.

The true nature of the chiropractic doctrine was never better stated than by Judge Crane in this most recent judicial exposure of chiropractic fallacy. Judge Crane, one of the most eminent jurists of our State, had thus to say:

"The theory of the chiropractics is that most, if not all, diseases come from pressure on the nerves caused by vertebra deviating from the normal. The treatment consists in restoring the vertebra which is out of alignment to its proper place to relieve the pressure. This is done by palpitating the spinous processes and pushing or manipulating the vertebra into place. The chiropractic claims to be able to treat and cure many diseases in this way. One of the defendant's chief experts in this case stated that the treatment consists entirely in adjusting the vertebrae which are found out of alignment to normal position. In this way, he stated, cancer of the stomach and liver can be cured, tuberculosis, smallpox, diphtheria, scarlet fever, diabetes and other diseases. *The chiropractic does not believe in the theory of disease.*"

Why is it necessary to say more? How could he be said? Think of it! A cult of men not educated to practice medicine, possessing no qualifications for this purpose, not only lacking the requisite knowledge and of course never having had their educational qualifications tested by a state preying upon human credulity! Of these ignorant quacks boasting that they

break the law and of the large revenue which they derive from their lawbreaking—these ignorant charlatans who deny the existence of the germ theory! It is high time that the people of this State should be aroused to this evil, this crying danger to the public health. This is no contest between licensed physicians and chiropractors, as the latter's representatives so frequently assert in the halls of the legislature and elsewhere. The licensed physician has no interest in the chiropractor except his interest as a citizen to see that the lawbreaker, the charlatan and the quack should be brought to justice. The time for action has come. The way is open. The law is clear. All that is necessary is the energy requisite to drive these medical bandits from our midst. If this is not done fearlessly, persistently and courageously, the time may come when the health of the whole people of the State of New York will be endangered by a plague of typhoid, scarlet fever, diphtheria, smallpox or other contagious disease. The chiropractor denies the existence of the germs which cause these dread diseases. He blatantly asserts that he is able to treat them, although he does not know what they are or who is suffering from them.

The new Medical Practice Act, if adopted, will furnish a new and more powerful weapon with which to put down this dangerous invasion against the health of our people. Doctors should support it, laymen should support it, all who believe in knowledge as opposed to ignorance, honesty as opposed to fraud, science as opposed to charlatanism and quackery, health as opposed to disease, cure as opposed to continued illness, should support the new Medical Practice Act. The case of Brown vs. Shyne illuminates and demonstrates the need of action.

No case on record has more clearly exposed the dangerous fallacies from which a large group of charlatans in this State derive substantial income. In the prevailing opinion Judge Lehman said

"The provisions of the Public Health Law prohibiting the practice of medicine without a license granted upon proof of preliminary training and after examination intended to show adequate knowledge, are of course intended for the protection of the general public against injury which unskilled and unlearned practitioners might cause."

As already pointed out, the prevailing opinion unhesitatingly condemned chiropractor Shyne for having committed a criminal offense. Judge Lehman expressed it in this language

"The defendant had no license to practice medicine, yet he held himself out as being able to diagnose and treat disease, and under the provisions of the Public Health Law (Cons Laws, ch 45) he was guilty of a misdemeanor. The plaintiff became paralyzed after she had received nine treatments by the defendant."

Thus once more we have a judicial determination that the chiropractor who holds himself out as being able to diagnose and treat disease is a criminal, he is a lawbreaker, he has done that for which he could be tried, convicted, sent to jail and fined. It is valuable to have this new judicial condemnation of the chiropractor, but as we pointed out in one of our recent editorials, the courts of this State have long adhered to this conclusion. That conclusion was reached in May, 1914, when chiropractor Leo E. Ellis, who was a graduate of the Davenport University of Chiropractics, was charged with the crime of practicing medicine without a license and was convicted of that crime. Again, in November, 1920, the conclusion was reached when a chiropractor treated an eight-year-old girl suffering from pericarditis and pleuritis and the patient died from his treatment. It was again reached

May, 1921, when a chiropractor who was entering the daytime as a clerk in a baggage local depot and who spent his evenings visiting spines was convicted of the crime of practicing medicine without a license. Ernest G. Meyer, a Palmyra physician, was involved in the injuries to a young child, which were caused by the use of a "thoracic" machine, which was used by Hagarty and a chiropractor, in the treatment of the child. The affirmation of the conviction was referred to the Supreme Court.

1. The types of peptic ulcer are regarded as one and the same in the animals. In the stomach the ulcer in the so-called "thoracic" organ—the tract which begins at the lesser curvature and reaches the first portion of the duodenum—appears to show that thin ulcer has a different etiology or pathology from that of ulcer elsewhere in the organ, and there is reason to

the Universal Chiropractic Association, made this admission under oath

"Q And yet in the face of the fact that Mr. Meyer said he didn't know and never knew until after the death of the child that the child had diphtheria, you still say that your answer does not consider that of any moment? A Yes, sir"

In the Shyne case this authoritative language from the United States Supreme Court in the case of *Dent vs. West Virginia*, 129 U. S. 114, 122, was quoted

"Few professions require more careful preparation by one who seeks to enter it than that of medicine. It has to deal with all those subtle and mysterious influences upon which health and life depend, and requires not only a knowledge of the properties of vegetable and mineral substances, but of the human body in all its complicated parts, and their relation to each other, as well as their influence upon the mind. The physician must be able to detect readily the presence of disease and prescribe appropriate remedies for its removal. Everyone may have occasion to consult him, but comparatively few can judge of the qualifications of learning and skill which he possesses. Reliance must be placed upon the assurance given by his license, issued by an authority competent to judge in that respect, that he possesses the requisite qualifications. Due consideration, therefore, for the protection of society may well induce the state to exclude from practice those who have not such a license, or who are found upon examination not to be fully qualified."

Despite this authority from the highest court of our land that those who practice medicine must have their qualifications tested by the state, the chiropractors who never have had their qualifications tested by the state, continue to flourish and even to boast of the number of "patients" whom they treat

At the hearing before the Joint Committee of Public Health of the Senate and Assembly held in Albany on the 3rd of March, 1926, the counsel for the State Chiropractic Association made the bold and frank admission that chiropractors in carrying on their practice, violate the law, and this admission was made while arguing that the chiropractors should not be prevented from carrying on their work and that the evidence of the value of their practice to the public health was shown by the number of persons who had paid money to receive chiropractic adjustment. The same argument might be made with equal force against the passage of the blue sky laws. Those who make a living by imposing upon the ignorance of widows and orphans and inducing them to buy fake stocks and bonds in non-existent mines might with equal force contend that their work of fleecing the public should not be interfered with because so many of the public have been willing to part with money for the securities thus purveyed.

The practice of chiropractic, in plain English, is pure quackery. It rests upon no scientific basis and has never been treated by spine manipulations and that to treat disease it is not necessary to

A LETTER TO A LEGISLATOR

MY DEAR SIR

I have read with much interest the bill amending the public health law, whereby the practitioners of Optometry are to have the privilege of prefacing their names with the word "Doctor." Honestly, do you not think this bill is working in the wrong direction? I do, for this reason. For over two hundred years, Universities have been conferring upon graduates, who took special work involving in most instances more than four years of collegiate attendance, the degree of Doctor. Whether it be the Doctor of Philosophy, Doctor of Civil Laws, Doctor of Dental Surgery, Doctor of Medicine or what not, has made little difference in the requirements. Furthermore it has always stood as a respected degree. English and Provincial as well as Colonial Universities do not confer the degree of Doctor of Medicine without the candidate having spent additional time or done additional work of note, beyond that required for his ordinary medical education. Granting the degree of Doctor to anyone fulfilling less rigorous requirements tends to cheapen the degree and lower the educational standards of the state.

On the average the public is undiscerning. Chiropractors hereabouts have been in the habit of preceding their names with the word Doctor, or following it with the title "Doctor of Chiropractic." In some instances they have used the initials, D C, but have generally changed over to the former. I have in my case histories numerous instances of apparently intelligent people who went to these men supposing that they were full fledged Doctors of Medicine. Just as another local illustration, when the present Director of the New York State Experimental Station came to town, some misguided individual inserted his name in the Telephone Directory as Dr. Thatcher. It was not long before Dr. Thatcher who happened to be a Ph D, not an M D, was called in the middle of numerous nights to attend obstetrical cases, contagious diseases, and accidents. Needless to say the telephone directory was promptly corrected.

One of our local shoe stores has an itinerant traveling salesman who came through as a representative of a certain brand of arch props. For some unholy reason he calls himself "Doctor" and the public swallow it. The letters which he writes to his customers would indicate that he progressed as far as the sixth grade in school and yet they call him "Doctor." Undoubtedly he will be entitled to the name, if the podiatry bill goes through and becomes a law.

This town is so full of Doctors of various types that it is almost a disgrace to be one. Some time ago a colored bootblack, sensing the trend of times, decided that he would be a "Doctor" too. He had his sign rearranged to read "Art

Kinney, Doctor of Bootblackening." This not only got him considerable business, but also earned him the title of "Doc" which he still enjoys.

I am wondering how it would be if some of our medical members of the legislature were to introduce a bill, granting a degree to each Justice of the Peace on his qualifying for office and giving him the privilege of hanging out a sign something like this

'JUDGE IGNORAVIUS JONES
JUSTICE OF THE PEACE

All kinds of tests applied

Broken contracts mended—All we need is the pieces

Never-ship agreements prepared while you wait

Snappy style—All work guaranteed

See us first—Why not now?"

"What would you think of such a proposition? If it is "sass for the goose" why not "sass for the gander." While we are at it, why not allow every notary public to practice in all but the Supreme Court on the same footing as the now authorized legal profession?

If the medical profession is to occupy the respectable position which it desires, if it is to continue as the guardian of the health of the public, progressive in matters of public health, sanitation, and disease prevention, and be of any value to the body politic, it can only do so by receiving at the hands of the government such recognition as it justly deserves, such protection as will insure its permanency, and such assistance as will encourage its further development.

I trust that we may have your assistance and cooperation, so that the proposed Medical Practice Act of 1926 may be enacted into law. With this bill on the statute books we feel that the position of the medical profession is assured, and that for many years to come conditions will be so covered as to make amendments to the law unnecessary.

H. J. KICKERBOCKER, M.D.,
Chairman Legislative Committee
Ontario County Medical Society

Editor's Note—This letter is an excellent example of a form of communication that will be likely to have an effective appeal to a legislator.

It offers a clear-cut argument, and backs up the reasoning with striking examples of which the legislator himself may be aware.

It more doctors will take the trouble to compose and send letters like this one, legislators could give definite reasons for supporting a practice of medicine bill that is wanted by the doctors and the thinking public.

LEGISLATION

HENRY L. K. SHAW, M.D.
Chairman, Committee on Legislation

LEGISLATIVE PROGRESS

The condition in Albany in regard to medical legislation has never been more favorable for maintaining and raising the standards of the practice of the healing art. Legislators are asking for enlightenment regarding proposed bills, and those who seek special privileges by lowering medical standards are strangely unassertive. It may be that they exposed their own ignorance in the two hearings on the chiropractic and the Practice of Medicine bills.

The Practice of Medicine bill has been made the subject of minor amendments which, however, have not affected its main features. It is receiving the support of county tuberculosis committees throughout the State. The State Charities Aid Association in its anti-tuberculosis crusade is dependent upon a skilled medical profession for the detection and treatment of the cases, and none know better than the members of the county committees how necessary it is to have skilled doctors to diagnose the cases and to supervise their management. It is therefore entirely proper that the members of the local committees should inform the legislators regarding their wishes, and should request them to support the Practice of Medicine bill. Legislators confess their surprise and gratification in the interest in the bill taken by laymen. Legislators wish to maintain a high standard of medical practice, but

this is the first year that their constituents have told them of the popular support of the bill. The very great mass of letters in previous years have been from chiropractic clients who were opposed to the Practice of Medicine bill, but this year the chiropractors seem to be silent, and the lay supporters of the bill are active. The State Charities Aid Association deserves the thanks and congratulations of physicians for its active support of the measure to set a high standard for medical practice.

The situation in regard to Workmen's Compensation bills is uncertain. The groups to be satisfied are so numerous that their agreement on any broad bill of constructive importance is doubtful, especially is this the situation in regard to the establishment of a medical council and a system of medical inspectors.

The bill permitting the Medical Society of the State of New York to establish trustees has passed the Assembly and has reached the third reading in the Senate. It will probably pass. Only one legislator spoke against it to question the use to which the funds of the Society will be put.

Bulletins four and five have been prepared and sent to the chairmen of the county legislative committees.

A PASTOR'S OPINION OF BASIC MEDICAL TRAINING

Dr. S. Parkes Cadman, Pastor of the Central Congregational Church of Brooklyn, contributes to the New York *Herald-Tribune* a daily column of answers to questions in civics, morals, and religion, and frequently includes medical topics in his discussion. His column in the *Herald-Tribune* of February 16th contains illuminating remarks on the basic educational requirements for practicing medicine. He was asked:

"If you had been a successful practicing chiropractor for nearly ten years and if the American Medical Society, authorized by the State, said you could not continue to practice unless you complied with certain laws which practically destroyed your science, what would you do?" Dr. Cadman's answer was as follows:

"I should conform with the laws in question.
"The general principle underlying the training

of candidates for the learned professions is that they shall pursue certain recognized studies.

"These studies are not confined to the teachings of any one school of law or medicine or divinity. They include as far as possible the entire realm of these branches of learning.

"Nor will the state license a candidate to practice law, medicine or dentistry until it is acquainted through prescribed sources with the extent of his knowledge of his calling.

"Once his knowledge is reported satisfactory, the state does not interfere with the practitioner's opinion. He may be a chiropractor still, and a better one because of his broader training.

"The inquirer has to face a condition and not a theory. So long as the state must protect the life of the citizen it will insist that those who profess, as he does, to heal diseases and delay death shall meet all its requirements."

Senate Introductory No 920—Mr Karle introduced a bill, copy of which is enclosed, regulating the occupation of hairdressers and cosmetologists, providing for licensing them and establishing schools. It is exceedingly interesting to note how broad the Public Health Law is growing to be.

Senate Introductory No 945—A bill introduced by Mr Higgins amends section 318-a, Public Health Law, by providing books and records showing sales of hypodermic syringes

and needles shall at all times be open to inspection by proper officers

HEARINGS

None scheduled for this week and we are advised that the calendar for next week has not been prepared

HENRY L K SHAW,
ARTHUR W BOOTH,
CLARENCE F GRAHAM,

Committee on Legislation,
Medical Society of the State of New York

BULLETIN NO 5

March 17, 1926

Our Trustee Bill, Assembly Introductory No 725—concurrent Senate Introductory No 532—has passed both the Assembly and Senate and gone to the Governor for signature

The Webb-Loomis bills—Assembly Introductory No 955, Senate Introductory No 717—have been reprinted so that they are now identical. Each contains a provision for the physiotherapy technicians. A copy of the latest print is enclosed. These bills will be acted upon in both committees this week and it is hoped may be reported out by the end of the week or Monday of next week. If they come out, we shall send you a special bulletin. By all means, this is the time when every physician should be doing his utmost to secure support for our bill. Remember that letters from influential lay persons are considered exceedingly valuable by the legislators. Leave no stone unturned, secure the co-operation of every organization that may be influential in your district.

Let us call your attention again to the willingness of the Tuberculosis and Public Health Committees throughout the State to assist in bringing support to this bill. Evidence of the activities of some of these organizations is already apparent at the Capitol. If your Society has not as yet gotten in touch with your local Committee on Tuberculosis and Public Health, we suggest that you do so at once and direct them as to how they can exert their greatest influence. Chambers of Commerce, through their Public Health Committees, should be asked to write to their legislators, Women's civic clubs, particularly the League of Women Voters, should be asked to lend their support. No voter should be neglected. Quality, of course, has its value, but quantity of support is also considered by legislators when framing their opinions.

Assembly Introductory No 65—Miller—concurrent Senate Introductory No 35, Workmen's Compensation bill, has been amended by Mr Miller and recommitted. The amendment makes possible the appointment of an osteopath to the

medical council and rewrites in a clearer way that portion where it provides that physicians applying for positions in the compensation division of the Department of Labor, shall come to Albany for a personal interview before receiving appointment. You will notice this amendment at the bottom of page 8 and the top of page 9. You will notice another important change on page 7 under 1 of section 78 has been rewritten.

Assembly Introductory No 331—the Miller eye bill (concurrent Senate Introductory No 184), is being rewritten by Dr Snell and very likely the amendments will be reported in the next week.

Assembly Introductory No 552—concurrent Senate Introductory No 375, a bill which would provide for employment of a physician to examine prisoners as they are entered at the county jail—which we reported in our last Bulletin as progressing²—has been passed in the Assembly and advanced to third reading in the Senate.

Assembly Introductory No 557—co current Senate Introductory No 357, habit forming drugs, was reported out by the Senate committee and has advanced to third reading.

Assembly Introductory No 1300—Ricca—has undergone another change, we are told. This bill originally made provisions for orthopedistry and before it received a hearing it was amended by substituting the word "bandagistry" for "orthopedistry," and now it seems that the name has been changed to "bandagery."

Senate Introductory No 945—which we mentioned in our last Bulletin—providing that books and records showing sales of hypodermic syringes and needles shall at all times be open to inspection by proper officers, has advanced to third reading. It has not yet appeared in the Assembly.

Following is a list of the bills introduced since our last communication

IN ASSEMBLY

Assembly introductory No 1350—(concurrent Senate Int No 968—A bill introduced by Mr

BULLETIN NO 4

March 9, 1926

The only bills to show any activity during the past week are the following

Assembly Introductory No 725—Senate Int No 532—our Trustee Bill, still rests with the Senate Judiciary Committee, but our information now is that it is being reported out today

Assembly Introductory No 76—Senate Int No 50—providing for licensing of persons making bacterial counts of milk and cream. Passed and referred to Governor, March 2nd

Assembly Introductory No 368—Senate Int No 147—announced in our first publication. The program has been amended so as to include specifically laboratory workers who are obliged to handle pathogenic micro-organisms.

Assembly Introductory No. 552—Senate Int No 375—requiring county jail physicians to examine prisoners, has progressed much more rapidly than we prophesied in our comment in The Program. It has been reported out in both Houses and in the Assembly was advanced on March 4th to third reading. Since the bill is moving so nicely, those who have the opportunity should exert their influence to have it passed

Following the hearing on Wednesday, the Medical Practice Act was amended by its introducers so as to include the provision for the organization of physio-therapists. This was done before the physicians who attended the hearing had an opportunity to discuss the effect such an amendment might produce. When they discovered the bill was printed, they regretted the speed because it became very apparent that the amendment was not acceptable to the medical profession or to the Society of Physio-therapists whom, it seems, were not consulted when this amendment was drawn. Leaders of this Society have requested that the amendment be stricken out and they be given an opportunity to prepare a bill of their own and this will be done, after which the bill be printed again and a copy sent you. There is still a surprisingly small amount of opposition manifested to our bill, both Senators and Assemblymen tell us that they are receiving letters urging the passage of the Medical Practice Act and practically none in opposition to it. This may or may not be a good sign

Following is a list of the bills introduced since our last communication

Assembly Introductory No 1247—Introduced by Mr Berg, would amend the Public Health Law so as to permit optometrists to use the title "doctor" providing they follow their name with the word "optometrist". As you can readily see, this is a companion bill to the podiatrist bill. Last week we appeared at the hearing against the podiatrists, urging that if chiropodists and podiatrists were permitted to use the title

"doctor," it would be establishing a precedent which other groups would not be slow in employing—and this bill is a confirmation of that prophecy. The optometrists feel that they have an equal right to be known as doctors, as the chiropodists. Our contention before the hearing was that none but men who have taken the regular four-year course in medicine and have complied with conditions laid down by the University of the State of New York, should be permitted to use the title "doctor". We gave as our specific reason that, to a lay person, the word "doctor" had just one significance—and that was that the individual using the title was qualified to examine persons and diagnose ailments and that podiatrists or any other group who may, so far as educational qualifications go, be authorized to practice on a particular part of the body, are, nevertheless, not qualified to make a complete study of the human body and, therefore, the use of the title "doctor" would be misleading. We shall enter this same plea in opposition to this bill of Mr. Berg's

Assembly Introductory No 1267 (concurrent Senate Int No 921)—Dr Lattin introduced a bill relative to certificates and reports to be made by counties receiving State aid for public health work

Assembly Introductory No 1292 (concurrent Senate Int No 946)—Dr Lattin introduced an amendment to the Public Health Law asking that the holder of a license to practice medicine in a foreign country, where requirements are not lower than those required for this State, be permitted to practice here. This is a variation of the Coughlin bill, Assembly Introductory No 132 which would permit holders of licenses granted in other states, to practice in this State

Assembly Introductory No 1300—Mr Ricca has revised his orthopedistry bill by dropping the word "orthopedistry" and substituting the word "bandagistry" and by the addition of this clause "nor shall he have the right to diagnose ailments or diseases of the human body". It is the hope of the introducers that these amendments will meet two of the important objections raised by the opponents at the hearing, first, that the name "orthopedistry" suggested an orthopedic surgeon and by substituting "bandagistry" they felt they had overcome that difficulty, and, second, that the bill as it was worded would permit manufacturers of splints to apply them without medical advice and the added clause is intended to overcome that difficulty

Assembly Introductory No 1303—Mr Rosenman adds a new section to the Penal Law requiring physicians or hospital superintendents to report to police authorities all cases for treatment of wounds caused by firearms

This year a very great deal has been accomplished in the way of public interest by an appeal to lay organizations interested in matters of public health. Undoubtedly the lay public are beginning to realize that it is their responsibility to protect ignorant people against deceit and fraud in matters pertaining to treatment of illness. The Tuberculosis and Health Association of the State has been most active in presenting arguments in favor of this bill at public meetings and at legislative hearings. The time is now at hand to ask you to do your share. This duty is self-evident to every thinking member of the medical profession. You can help materially in the following ways:

First—Write your Senator and Assemblyman, telling him that you personally consider that this bill is a measure which demands enactment into

law for the protection of public health and the elimination of quackery in the State.

Second—Ask members of your family and friends to write similar letters to the Legislators, urging their favorable action when this bill comes up for vote.

Third—Be well acquainted with the bill and with the situation as regards quackery and cultism now existing in New York State so that you can take opportunity to present the right side of this bill to laymen. If you are a member of a hospital staff, urge your staff, hospital executives and hospital boards of governors to actively take an interest in this legislation and write to their legislators reviewing their interest and urging the enactment of the measure into law.

W A CALIHAN,
Chairman

JEFFERSON COUNTY MEDICAL SOCIETY

March 11, 1926

WHEREAS, The members of this Society have absolute confidence in the committees of the county and State Societies representing them, in matters of legislation, and

WHEREAS, We feel that the present amendment to the Medical Practice Act, as introduced into the legislature by Mr Loomis, and as published in the State Medical Journal of March 1st, is as near perfect as it can be,

Be It Resolved, That this Society vote its approval of said amendment to the Medical Practice Act,

Be It Resolved, That this Society, through its

members, request influential citizens of this district to write their representatives to favor the passage of this bill, and

Be It Further Resolved, That a copy of this resolution be sent to the Senator and Assemblyman from this district to the President of the State Society, and to the chairman of our state legislative committee.

The above resolution was offered by the chairman of our local legislative committee, on the above date, and *passed unanimously*.

(Signed) PAGE E THORNHILL,
Secretary pro tem

OTSEGO COUNTY MEDICAL SOCIETY

The quarterly meeting of the Otsego County Medical Society was held March 9th, 1926. The session was called at 4 30 P M in the parlor of the Hotel Fenimore, Cooperstown. Dr R W Ford, President in the chair. Minutes of the last meeting were read and approved.

The application of Dr Alex F Carson was received and approved for membership. Dr F H Marx, acting chairman of the Legislative Committee made a report on pending bills before the legislature.

A motion was made, seconded and carried that the Medical Society of Otsego go on record as approving the Assembly Bill No 1011, to amend the public health law, and that notice should be sent to our Senator and assemblyman urging them to approve the same.

A motion was made, seconded and carried that the Society go on record as approving the Assembly bill No 65 510 known as the Workmen's Compensation Law.

The Society also endorsed the plan of toxinitoxin treatment for Diphtheria, the examina-

tion of children of pre-school age, and the work of the Junior Project.

Dr William C Garvin, Superintendent of the State Hospital in Binghamton, N Y, read a paper on "The Early Diagnosis of General Paresis".

Dr Hugh S Gregory, of the State Hospital presented a series of lantern slides showing the pathological changes in the brain and cord as a result or cause of Paresis.

Because of the bad condition of the roads only a few members were present.

Drs Cruttenden Atwell, Bissell, Lanning and Tyrone of Cooperstown. Dr R W Ford of Otsego, Dr F L Winsor, Laurens, J P Hoyle, Fly Creek. Dr W R Seeber, Milford, Drs Champlin, Marx and A H Brownell of Oneonta, Dr William C Garvin and Dr Hugh S Gregory of Binghamton.

Announcement was made of a series of lectures on obstetrics to be given in the Elks Home each Tuesday evening at 7 P M, beginning March 30th.

Evans, would amend section 82 of the Insanity Law by providing for trial by jury to determine question of insanity

Assembly Introductory No 1351—(concurrent Senate Int No 967)—Also by Mr Evans, would amend section 81, Insanity Law, relative to qualifications of examiners in lunacy "The qualifications of medical examiners in lunacy certified after date from which this act shall take effect shall be that he or she must be a reputable physician, graduate of an incorporated medical college, who has been in actual practice of his or her profession at least three years, and shall have at least two years actual experience in the care and treatment of the insane in an institution for the insane" This, as you see, limits the examiners in lunacy to those who have served at least two years in an institution for the insane

Assembly Introductory No 1353—A bill introduced by Mr Fay, would amend the Civil Practice Act by providing that malpractice suits must be commenced within one year instead of two years, as the law now reads Copy of this bill is enclosed

Assembly Introductory No 1377—A bill introduced by Mr Doyle, would amend the Workmen's Compensation Law by authorizing injured employee, at expense of employer, to employ physicians and surgeons

Assembly Introductory No 1410—Introduced by Mr Thomas, would amend the Public Health Law relative to the powers and duties of local health boards The important part of the amendment is that it provides for the appointment by a health officer of a physician to act as health officer during his temporary absence or incapacity on account of illness

Assembly Introductory No 1416—A bill introduced by Mr Hofstadter, would amend the Public Health Law by authorizing any woman filling prescribed conditions, to practice as a dental hygienist

Assembly Introductory No 1427—Introduced by Dr Lattin, would amend the General Business Law relative to licensing employment agencies by bringing under provisions agencies providing employment for nurses This bill was prepared by the State Medical Society at the suggestion of the special Committee on Nursing A copy is enclosed

Assembly Introductory No 1457—Introduced

by Dr Lattin, would amend the Public Health Law by authorizing board of supervisors to abolish any general health district at any time after two years following its establishment and after a public hearing, and relative to salary of health officer for general district

Assembly Introductory No 1526—Introduced by Mr Alterman, would amend the Penal Law by providing that no experiments or investigations for scientific purposes shall be made upon a living dog When the bill is printed, a copy will be forwarded This is our annual antivivisection bill, but it has appeared so late this year that we are inclined to think it will get but slight consideration It will be almost impossible to arrange a hearing

HEARINGS

The following hearings were announced on Monday

March 16th—Assembly Int No 1303—Rosenman—Penal Law, wound firearms

March 17th—Assembly Int No 1025—Laudau—Health Law, X-ray treatment

March 17th—Assembly Int No 1051—Meegan—Health Law, eyeglasses, sale

March 17th—Assembly Int No 1097—Grossman—Health Law, anaesthetic

March 17th—Assembly Int No 1292—Lattin—Health Law, practice medicine

March 17th—Assembly Int No 1300—Ricca—Health Law, bandagistry

March 23d—Senate Int No 723—Cole—Educ Law, medical inspection

March 23d—Assembly Int No 1042—Rice—Schools, medical inspection

Both Houses have adopted resolutions deciding that all individual committee work will end on April 1st and after that date both Houses will proceed as Committees of the Whole That will mean that probably next week will be the last week that hearings will be held

HENRY L. K. SHAW,
ARTHUR W. BOOTH,
CLARENCE F. GRAHAM,

Committee on Legislation

Medical Society of the State of New York

P S—Loomis Medical Practice Act and the Esmond Chiropractic Bill voted out by Assembly Committee today

LEGISLATIVE COMMITTEE—COUNTY OF MONROE

The Legislative Committee of the Medical Society of the County of Monroe has sent the following letter to each of the members

Dear Doctor

The Legislative Committee of the Monroe County Medical Society consider that it is most essential for you to take an active part in an

effort to create sentiment in favor of the *Medical Practice Act* which is before the Legislature at this session This bill, known as amendments to the Medical Practice Law, is called *Assembly Introductory No 955* The bill has been discussed at various times in the State Journal and you must be aware of its contents

EPIDEMICS OF MEASLES

Dwellers in rural districts are well aware that cases of measles come in waves or groups with considerable regularity. In sparsely settled districts the waves are several years apart, and an epidemic usually starts from an incipient case who mingles with other persons in a crowded room. The first case of a rural epidemic can usually be traced, and when the wave of cases has passed with the exhaustion of susceptible material, there may be no more cases for a decade.

In a good sized village the epidemics recur every four or five years, because of the greater number of susceptible persons and the great opportunities for contact.

In large cities measles epidemics come in alternate years, and the original cases can seldom be traced.

The Brooklyn *Eagle* of February 25th contains an article with the heading, "Measles Epidemic Is Here." It quotes Dr H. T. Peck, Assistant Health Commissioner in charge of Brooklyn Borough as saying, "It is just the biennial measles epidemic. Every two years some health statistics have been kept here in Brooklyn. Such an epidemic has occurred."

The article quoted the following table of the number of measles cases reported in recent years:

1922	12,260 cases
1923	2,635 "
1924	11,015 "
1925	1,344 "
1926 (6 weeks)	3,055 " "

It will thus be seen that in the even numbered years there are from five to ten times as many cases as in the odd numbered years.

Looking at the number of deaths there is an excess in the even numbered years, but to a lesser degree. The measles mortality figures for Greater New York are as follows:

1919	218 deaths
1920	736 "
1921	165 "
1922	977 "
1923	245 "
1924	506 "

The number of deaths from measles in Greater New York varies in alternate years with the number of cases that develop.

The weekly Health Review of the Department of Health of Detroit, Michigan, for February 27, contains a table showing the ages at which children are most susceptible to measles, and is based on a study of 305 families in which measles existed. An average of 68 per cent of the susceptible persons in those families caught measles. Of those under one year of age, 34 per cent caught it. During the ages from one to two, 59 per cent caught it, and from three to five, about 70 per cent, while from six to nine about 89 per cent caught the disease.

The lesson from these statistics is plain. Young children are more likely to die from measles than older ones, but they are also less susceptible and may more easily be kept away from cases.

The great fact about reducing the number of deaths from measles is to teach the people of the need of protecting their young children from catching the disease.

BEAUTY PARLORS

"Have you noticed that American men, women and children are three times as beautiful as they were in 1915? Oh, you must have done so, statistics show it, and so does Charles Nessler, president of the Master Hairdressers' Association of America, which is having its annual convention at the Hotel Commodore this week." These are the opening words of an article in the New York *Sun* of March 8th. The article continues:

"Mr. Nessler's figures show that there are 30,000 beauty parlors in this country, three times as many as there were in 1915, that they took in \$390,000,000 of the people's money that year and that they were patronized by 60,000,000 men, women and children.

"And 170,000 men and women are engaged in doing all these things to make the United States a prettier place to live in, and there are hundreds of schools turning out beauty graduates every

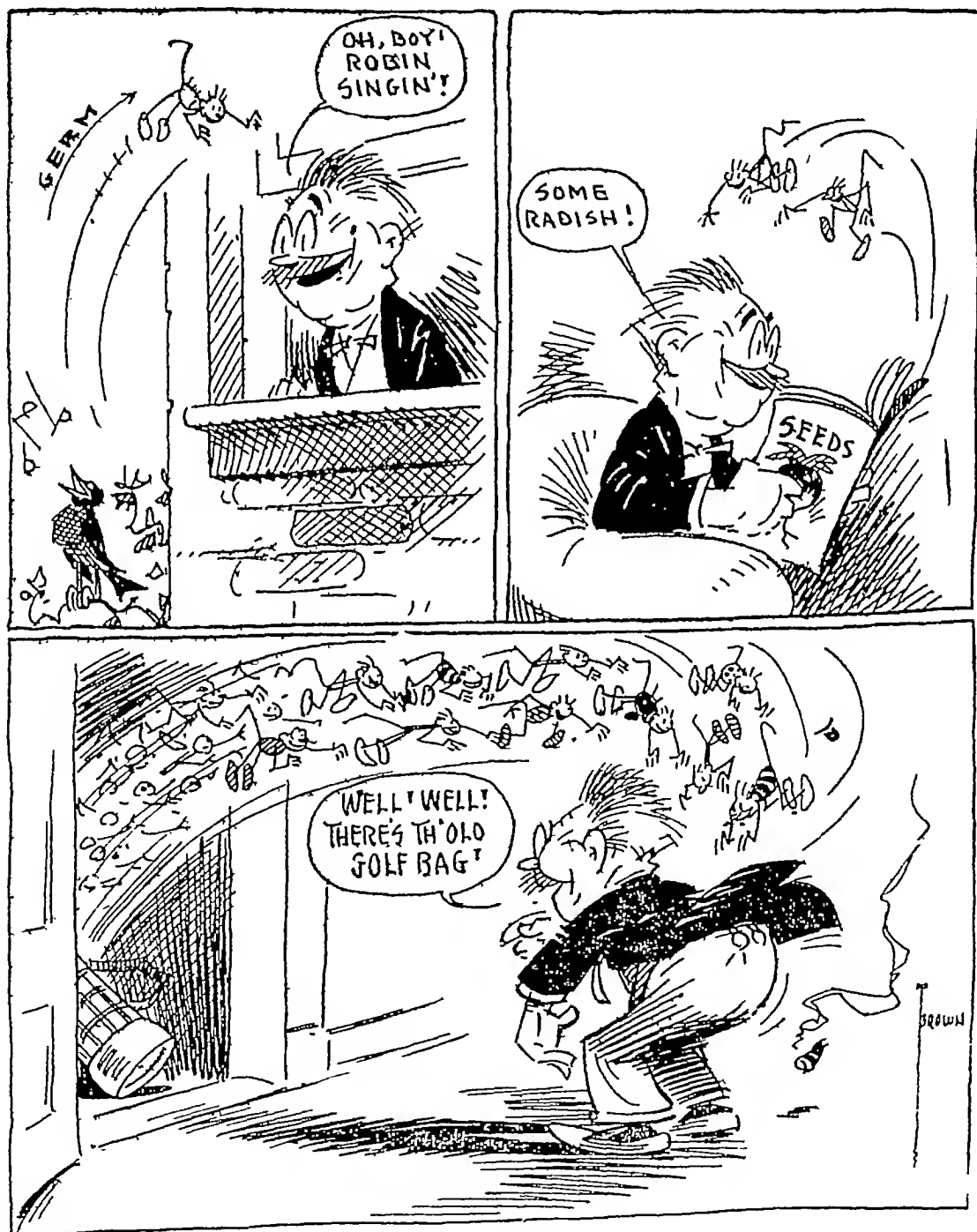
four months who are daily increasing the ranks of the profession. One school matriculates 2,000 sweet girl graduates a year.

"The average cost of a pulchritude producer's education is given by Mr. Nessler, daddy of the game, as \$250, whereas years ago the operators used to pay their pupils while they were being instructed."

These are surprising figures. Are the results worth the costs? Walk down any "Main Street" and see the clear skins, beautiful complexions, and active gaits of the women and men. The results are so striking that the beauty makers claim the glory for themselves and even to the title "cosmotologists," but they are not entitled to all the credit. Diet, exercise, and good hygienic living are more beautifying than outward applications and manipulations. Still let us thank the beautifiers for making this world a more attractive place in which to live.



THE DAILY PRESS



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SPRING FEVER GERMS

From the *New York Herald Tribune*, March 22, 1926 Physicians will be interested in the original way the artist has indicated the germs

NEW YORK STATE JOURNAL of MEDICINE

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ANNUAL MEETING

The One Hundred and Twenty-Sixth Annual Meeting of the Medical Society of the State of New York was held during the four days, Monday to Thursday, inclusive, March 29 to April 1, 1926, in the Hotel Waldorf-Astoria, New York City. The schedule was carried out according to the program that was printed in the February 15 and March 15 issues of this Journal.

The preparations for the meeting had been well worked out and the physical accommodations gave unusual satisfaction. All the meetings and exhibits were on one floor, and doctors had no difficulty in finding one another. Familiar faces were much in evidence, and it was gratifying to note that many younger physicians were forming the habit of attendance.

The spirit of a meeting is difficult to predict. One is always safe in saying that any meeting of the Medical Society of the State of New York will be "interesting and profitable," but when the reporter is forced to use that expression, the meeting is likely to be as cold and as formal as the adjectives. The present meeting may be best described as "practical" in distinction to the idealistic, the oratorical, and the controversial. There was an absence of the spectacular, and the presence of quiet dignity and earnestness in all the meetings and discussions.

The registered attendance was 1,229, which is large for a State meeting held in New York City. It is strange that the attendance in New York is usually smaller than that in an up-State city.

The meeting of the State Medical Society embodied the four major features of the House of Delegates, the Scientific Sections, the Syphilis Exhibit, and the Commercial Exhibits.

The House of Delegates The House of Delegates held three sessions beginning at 2:30 P. M. on Monday. The delegates dined together in the early evening and then continued the session until eleven o'clock. The reports of the officers and committees were received and were referred to the usual reference committees. A significant action was the adoption of a resolution that the reports should be printed in the JOURNAL before the Annual Meeting in order that the members might come prepared to act intelligently. These

reports and a summary of the actions taken on them by the House of Delegates will appear in an early issue of this JOURNAL.

There was a feeling among the members that greater opportunity should be given to the officers and chairmen of committees to explain what they have accomplished, and what are their plans for the future. One solution would be to devote a half a day to a general session in which the officers and chairmen would present their views.

The only suggestion that aroused any considerable controversy was that regarding the acceptance of money from sources outside of the regular income of the Society. Some felt that the freedom of action of the Society would be curtailed if gifts were accepted, and on the other hand the bills for public health activities of some county societies are already being paid by gifts from individuals and lay organizations. Since the State Society is entering broader fields of service which have hitherto been left to lay organizations, the members wisely voted to refer the matter to the Council for study and action.

The spirit of leaving controversial matters to be settled after investigation was characteristic of the temper of the delegates. The House is a deliberative body rather than one of investigation, and the members avoided debates when there was not sufficient evidence for judgment. It is an excellent omen that the members were willing to leave the study of broad problems of policy to the twenty-four representative physicians who compose the Council.

The election of officers was marked by unusual harmony, and all the principal places were filled by unanimous vote without contest. The list of officers and chairmen of committees is printed on the first editorial page.

Scientific Sections Each of the seven scientific sections held three half-day sessions, but since in several instances two or more sections combined in joint sessions, the number of meetings was fourteen, at which sixty-four papers were presented. This number of papers would be just about sufficient to supply the JOURNAL with scientific material for the coming year if the JOURNAL were published monthly, but since it appears twice

BOOK REVIEWS

OTOLOGIC SURGERY By SAMUEL J. KOPETZKY, M.D., F.A.C.S., Professor Otology, Polyclinic Medical School and Hospital, N. Y. City. 102 illustrations, 4 color plates, 21 charts. Paul B. Hoeber, New York, 1925. Price, \$8.00.

This is a text devoted to the surgical diseases of the ear and their management. Early in the book it is noted that the author proceeds logically from the known pathology of the condition as a basis to the elucidation of the symptomatology, diagnosis and treatment. Because pathology is the basis for the author's discussions, the text is more readily understandable to even those who are not otologists. None of the 102 illustrations are superfluous. Each carries a real message. The photomicrographs are a contribution to the science of otology.

The author and his publishers are to be congratulated upon the style, the paper, the text and general appearance of the book. This text book stands out among those of its subject and will no doubt see several editions. To any who might be interested in diseases of the ear this book is to be recommended. M. C. M.

DISEASES OF THE NOSE, THROAT AND EAR, MEDICAL AND SURGICAL. By WILLIAM LINCOLN BALLENGER, M.D. Revised by HOWARD CHARLES BALLENGER, M.D. Fifth Edition. Octavo of 1080 pages, illustrated with 551 engravings and 32 plates. Philadelphia and New York, Lea and Febiger, 1925. Cloth, \$10.00.

It is a source of gratification to the many otolaryngologists and practitioners who have in the past enjoyed the ownership of a Ballenger that this fine text book is being continued in revised form by the son of the late William Lincoln Ballenger.

In this fifth and posthumous edition all the good features of the last edition are included. In addition, there are noticeable in many of the chapters revisions, additions and eliminations. The general arrangement of the text, the completeness of the subject matter, the paper and print, and the many illustrations make it what it has been heretofore—one of the leading text books of otolaryngology. Such chapters as those dealing with neoplasms of the larynx and the labyrinth, are examples of the completeness of the book. M. C. M.

A MANUAL OF OBSTETRICS By JOHN COOKE HIRST, M.D., F.A.C.S. Second Edition, entirely reset. 12mo. of 551 pages with 229 illustrations. Philadelphia and London, W. B. Saunders Company, 1924. Cloth, \$4.50 net.

There is little to be added to the reviewer's last remarks about the previous edition of this work, which appeared not so long ago. It is written with the concise positive style that pertains to each of these two teachers of the same family. It is a style more suited for the student than the specialist, and the book is intended for the former.

The preface to the present edition makes reference to several new developments in obstetrics that add little to its value as either they are incompletely discussed like the Kielland forceps, or might be omitted, like Potter version from such a text book.

All in all, it is one of the excellent works of its kind. E. B.

THE CULTURE OF THE ABDOMEN—THE CURE OF OBESITY AND CONSTIPATION. By F. A. HORNIBROOK. Preface by SIR WILLIAM ARBUTHNOT LANE, Bart., C.B., M.S., Consulting Surgeon Guy's Hospital, etc. Second Edition. William Wood & Co., New York, 1925. Price, \$2.25.

The fact that this is a second edition of this little

book proves there is some demand for it. This demand is evidently from the laity. It is a book that medical men may place in the hands of their patients to emphasize the importance of abdominal exercise. A few good exercises are described and illustrated with photographs. HENRY F. KRAMER.

DIABETES, ITS TREATMENT BY INSULIN AND DIET. A Handbook for the Patient. By ORLANDO H. PETTY, A.M., M.D., F.A.C.P., and WILLIAM H. STONER, A.M., M.D., F.A.C.P. Illustrations and Tables. F. A. Davis Co., Phila., Pa., 1925. Price, \$1.50 net.

Doctors Stoner and Petty present another handbook or manual for diabetics, and address their small volume to the patient. Nearly half of the volume is given over to a discussion of the cause, prevention and diagnosis of diabetes, and a chapter on foods in general, including tables showing the vitamin content of the various foods. The last half of the volume, which treats of the weighing and measuring of foods, and the methods of estimating diets, with tables of food values and rules for cooking these foods, far outweighs the first in value to the patient. They present a scheme for calculating diet which is original and well adapted to the average patient's training and mentality. Particularly of value is a specimen daily blank, which can be filled out for each meal and this will simplify the calculation considerably. There are also chapters on the use of insulin, rules for injection, examination of urine, and hygiene of the diabetic. The authors do not propose to supplant the physician by this handbook, and they have given the bulk of the material which is useful to the patient. It should be of definite service to physicians, in their own hands or on the shelves of the reference books of their diabetic patients. L. C. J.

SELECTED ESSAYS ON ORTHOPEDIC SURGERY. From the writing of NEWTON MELMAN SHAFFER, M.D. (University of the City of New York, 1867), F.A.C.S. Illustrated. G. P. Putnam's Sons, New York and London, 1923.

This volume is a collection of the most important papers published and lectures delivered by the author during his active career. Some of the writings appeared as early as 1877 and some as late as 1901.

The papers on tuberculosis of joints, although written before the discovery of the tubercle bacillus, give an exposition of the subject which holds just as true today as when they were written. The article on reflex muscular contraction in joint disease is a classic and may be read with benefit by all interested in the subject. The principles of the mechanical treatment of joint tuberculosis are clearly set forth. Some of the appliances described should receive greater consideration. His knowledge of mechanical principles and skill in their application is rare.

One section takes up "Club-foot, flat foot, and non-deforming club-foot." He uses the latter term for what we now call contracted or claw-foot. This is an original work and well taken up.

Some of the other more important papers deal with the traction and abduction treatment of ununited fracture of the neck of the femur, the treatment of acute and sub-acute inflammation of the knee joint permitting locomotion, and the hysterical element in orthopedic surgery.

Although there is nothing new in this work, some fundamental orthopedic principles are so clearly brought out that it will make interesting and instructive reading for those interested in the subject.

J. B. L'EPISCOP

the lesser buying activity of New York doctors is due, in part at least, to the availability of two great medical libraries in Greater New York, and the consequent lessened need for large private libraries. Still, one exhibitor was inclined to the opinion that the Western doctors were habitual readers of medical literature.

Publicity The subject of Medical Publicity was frequently mentioned by the officers and speakers, and physicians as individuals were urged to instruct their patients in the fundamental basis of medicine,—how an antitoxin works, the contagiousness of "colds," and the reasons for an early operation in cancer. The officers set a consistent example to the individual members by giving information to the reporters of the newspapers and the Associated Press. It was the pleasant duty of the Executive Editor to act as guide to the reporters, to explain the actions of the House of Delegates, and to introduce them to leading physicians who would explain medical points of popular interest. The reporters were on the watch for the strange, the wonderful, and the new, but withal they were after the truth,

and in no instance did they stretch a fact to magnify it into a sensation. The proceedings were surprisingly free from sensationalism, and even threatened disputes in the House of Delegates lost their news value, as they were referred to the Council for study and investigation.

Newspaper men have hitherto complained of the reticence of physicians, and of their lack of unanimity. The reporters of this State meeting expressed their gratification at the frankness of the doctors and their unanimity in essential matters.

Newspaper space given to a subject depends on several factors. The leading dailies of New York City kept their reporters in almost continual attendance at the meeting, but the desk editors used only about one-third column in each issue, for the meeting of the State Medical Society was only one of many important events that were taking place throughout the world. Doctors may well be gratified that their meeting was considered to be of sufficient public importance to justify the constant presence of high-class reporters, and of space in the news columns.

THE ANNIVERSARY MEETING

The Anniversary Meeting of the Medical Society of the State of New York, held in accordance with the provisions of the original charter granted by the Legislature, was held on Wednesday evening in the Grand Ball Room of the Hotel Waldorf-Astoria, New York City. Dr. Edward R. Cuniffe, Chairman of the Committee on Arrangements, opened the meeting and, before introducing the President, he announced that the general subject of the evening would be the Prevention of Diphtheria. He said that when doctors see an opportunity for service, they give up pleasure and devote themselves to serious work. The medical profession has sufficient knowledge and means to stamp out diphtheria, but the knowledge is not effective until it has penetrated not only to the doctors in every hamlet, but also to the people so that they will accept the procedure. Marvellous cures are claimed by quacks, but only doctors can prevent diseases.

The first speaker was Dr. N. B. Van Etten, who gave the Annual Presidential address which is printed on page 343 of this issue of the JOURNAL.

Dr. Wendell C. Phillips, President-Elect of the American Medical Association and Past-President of the State Society, gave a brief address on educating the public in medical subjects. He said that the 150,000 doctors who practice in the Nation should constitute themselves teachers in the great Public Health University whose students are the people, and should give informal courses in public health, sanitation,

and medicine. The text books could be the newspapers, and already their editors are asking the doctors to supply the readers with information on health. Few persons are in exuberant health, but all wish to be well, and are seeking the means to attain vigor and strength. Dr. Phillips said that the American Medical Association approved the plan that doctors should do publicity work in instructing the people in public health topics.

Dr. Matthias Nicoll, Jr., Health Commissioner of the State of New York, spoke on the campaign for the eradication of diphtheria in New York State. His first close contact with the disease was made in 1896 and has continued up to the present time. He recalled the helplessness of physicians in treating diphtheria in the pre-antitoxin days, especially laryngeal cases from which, in hospital practice when tracheotomy had been performed in order to keep the children from choking to death, there were very few recoveries. With the practice of intubation, perfected by Dr. Joseph O'Dwyer, one-third of the cases recovered, and subsequently when antitoxin was made available, two-thirds of the cases recovered. He recalled the first antitoxin, which was pretty poor stuff and said that what it lacked in potency was made up in its power to produce every variety of serum sickness. Following the general use of antitoxin as a preventive and cure, the death rate from diphtheria fell enormously, but as time went on, the number of cases showed little diminution and even a tendency to mount. It has

a month, more scientific papers will be needed. The Editors hope to make out a schedule for the publication of papers, and to supplement them with other papers which shall round out the topics into a more complete form.

The Scientific Committee had chosen program subjects which appealed to the average physician, and their success was shown by the fact that the meeting rooms were well-filled, although they were of unusual capacity. As examples of the practical nature of the programs may be cited the discussion of the newer phases of scarlet fever diagnosis, treatment and prevention at a joint session of the sections on pediatrics and of public health, the discussion of the abnormal child by the sections of neurology and public health, and that on vitamins in the joint meeting of the sections on Medicine, Pediatrics, Public Health. The recognition of the broad relation of one specialty to other branches of medicine was well recognized by the program makers.

The Syphilis Exhibit The last day of the meeting was devoted to a demonstration of all phases of syphilis. The central plan was that of an exhibit covering all phases of the subject,—scientific, clinical, laboratory, and official. The subjects were grouped in sixteen divisions in twenty-eight section booths which occupied the entire floor of the ball room. Cases and pathological specimens were shown in at least twelve sections, and the clinicians and pathologists in charge conducted a continuous series of talks for over three hours. The amount of material that was exhibited was surprisingly large and varied, and was drawn from the abundant material in the laboratories and hospitals of New York City and from the material at the disposal of the Departments of Health of the City and State. The assemblage of the material and of the lecturers and demonstrators was the result of the earnest efforts of Dr. Louis I. Harris, Commissioner of Health of New York City.

The only serious difficulty encountered in the exhibits was lack of room for those who wished to see and hear. At one time in the morning there were over two hundred physicians in the room by actual count, and many more were in the lecture rooms where slides and moving pictures were shown. The attendance was well over five hundred.

The afternoon was devoted to a series of lectures on syphilis, and here, too, the meeting room was crowded.

It is the expectation of the Editors to collect abstracts of the extemporaneous talks that were given in the booths and to publish them in a special number of the JOURNAL, together with the prepared papers that were presented in the afternoon session.

It was the opinion of those who knew, that the exhibit was the largest and most practical that has ever been brought together. Its success prob-

ably assures the collection of a similar exhibit on some general subject at every meeting of the State Society. The subject of cancer is suggested for next year.

The Commercial Exhibits Exhibitors of commercial products showed their wares in the commercial exhibit. Both the visiting doctors and the exhibitors had two objects in view,—one scientific, and one business.

To the doctors the commercial exhibits were almost as interesting and important scientifically as the scientific sessions themselves. They wished to see the latest forms and ^{by} WILLIAM L. WATSON, electrocardiograph, ^{and} Illustrations and 1 of projecting pictures, ^{Price, \$1} modern developments in foods and drinks and drug and the latest editions of books. Here the demonstration could be consulted and new acquaintances formed with the members of firms with whom doctors wish to do business. The tools with which a doctor works and the methods of their use are equally important with his equipment of theoretical knowledge.

The exhibits also enabled doctors to gain business knowledge. The physician puts business in the background when he attends a meeting of a medical society, and yet his living depends on his collections and expenditures just as does the prosperity of the exhibiting firms. The physician will welcome the visiting salesman the more warmly because of the acquaintance formed at the commercial exhibits.

The exhibitors expressed themselves as well pleased. They said that the doctors had shown the expected degree of interest in the exhibits, and had been eager listeners to the demonstrations.

Some exhibitors had emphasized the business side of their demonstration and said that they had taken orders sufficient to pay for the exhibits. Others said they had not reckoned the orders, but had stressed the scientific and social side of their business. One exhibitor who was in a far corner apart from the natural stream of doctors, said that 150 doctors had registered their names at his booth, but when he was congratulated that one-eighth of those in attendance had shown sufficient interest in his wares to write their names and addresses, he replied that last year at Syracuse when he had a booth in the front line where all the doctors passed and many lingered, five hundred had registered with him.

It was enlightening to hear the comments of the exhibitors on the buying instincts of the doctors of New York State. It seemed to be the opinion of book men and instrument makers that the doctors of the Middle West showed buying activities to a far greater degree than those in New York State. This is reflected in the advertising pages of the medical journals of the two sections. As a concrete example the subject of medical books may be mentioned. It may be that

ing the standard of the practice of medicine of doctors throughout the State up to that of the best practitioners

Dr Van Etten also spoke of the common aims and mutual helpfulness of physicians and lay workers in public health. The lay organizations had found that while they could do social and welfare work, they could not hire doctors to do the most effective kind of public health work, for that can be done only by doctors who are in close touch with families and individuals. But while doctors cannot be hired, they may be inspired to do the medical part of public health work, if the lay organizations will do the social service part of the work.

Mr Homer Folks, Secretary of the State Charities Aid Association, which he said was the only State-wide lay organization engaged in public health, gave a frank address in which the relation of the lay health organizations to medical practice was definitely outlined. He said that until some ten years ago there seemed to be a clear distinction between health activities and medical practice, and no serious problem of adjustment seemed to have arisen. During and immediately after the War, however, the field of health activities, public and private, seemed to have considerably extended and the question of adjustment of health activities to medical practice became acute. There ensued a period of criticism and recrimination. The health workers came to see that while certain community health activities did not involve the practicing physician, such, for instance, as the securing of pure water supply, most health campaigns do necessarily involve diagnosis, treatment, and guidance of individuals by physicians. It had also become clear that so far as they are qualified to give the kinds of diagnosis, treatment, and guidance required, the family physicians are by far the best persons to do it. Quite recently, and very informally, representatives of medical practice and of health activities, public and private, had sat down together on several different occasions to work out in some detail just how the family physician and the general practitioners can participate effectively in all the varied health activities that need to be undertaken. These conferences had served the extremely useful purpose of showing that when narrowed down to questions of fact, there is little or no difference of opinion between practicing physicians and lay health workers.

The health organizations are more than glad to recognize the family doctor as the accredited agent for giving medical treatment so far as the medical profession was willing to assume the responsibility. As evidence of the new attitude, Mr Folks mentioned the active support of the Practice of Medicine Act by the State Charities Aid Association and its subsidiary county organizations, and the harmonious campaign for the

eradication of diphtheria by the administration of toxin-antitoxin by family doctors to children of pre-school age.

The effect of the announcement of Mr Folks will be far-reaching. On the one hand it will suppress the spectre of State medicine with the threat of political control over the doctors, and on the other hand it will mean that the lay organizations and their nurses and other employees will educate the people to trust and patronize their doctors. It means the centering of public health measures in the medical profession, and the relegation of medical duties, so far as possible, to family physicians. It will help to bring about the ideal expressed by Dr George E Vincent at the 1925 Annual Meeting—"Every Doctor a Health Officer."

Dr Wendell C Phillips, Past President of the Medical Society of the State of New York, and President-Elect of the American Medical Association, the National body of which the New York State Society is a component part, spoke in detail of the work of the National Society in standardizing the practice of medicine, and in promoting the medical education of the people according to the measure of their ability to grasp medical truths, which Dr Phillips said was greater than is usually supposed. He made a strong plea for the examination of presumably well persons, and said that the people are accepting and even demanding the examinations. Dr Phillips also paid a high tribute to Governor Alfred E. Smith for his active stand for the support and promotion of Legislation to uphold a high standard of the practice of medicine.

Dr Elmer E Brown, Chancellor of the New York University, spoke at some length on the altruistic services of physicians in promoting public health and thereby diminishing the number of cases on whom their livelihood depended. This is one great reason why the public owes a great debt to the medical profession.

The doctor is like a young factory hand who lost job after job because in each he destroyed the need for himself by inventing a machine to do the hard hand work for which he was hired, but in the end he won the good will of his fellow laborers and a partnership in the company.

Dr Brown paid a tribute to the practicing physicians who while fighting disease, profit by their failures as by their successes and show the spirit of the verses in "The Fire Bringer," by William Vaughn Moody

Of wounds and sore defeat
I made my battle stay,
Winged sandals for my feet
I wove of my delay,
Of weariness and fear
I made my shouting spear,
Of loss, and doubt, and dread,
And swift oncoming doom
I made a helmet for my head
And a floating plume.

long been apparent, therefore, that in order to reduce to a minimum or even to eradicate diphtheria, it was necessary to have some agent which would not only serve as a cure for cases of diphtheria and for the establishment of a temporary immunity, as we have had for many years in antitoxin, but an agent which would confer long or even permanent immunity, especially at that period of life in which there is the greatest susceptibility to the disease and so many fatalities. This agent is now available in form of toxin-antitoxin.

It has been demonstrated that its extensive use in selected areas, as in the City of Auburn and in the City of New York, will greatly diminish the incidence of diphtheria, and there can be no question that if even a majority of susceptible individuals, especially those in the pre-school age, are immunized, the disease will become a rarity.

Dr Nicoll said that he was, at first, rather skeptical as to the advisability of adopting the slogan for the campaign of "No Diphtheria by 1930" and his skepticism was largely based on the belief that the medical profession at large, upon which the success of this campaign must depend, would be reluctant to take an active part in it. The events of the last few months have served to dispel that doubt. The physicians throughout this state, through their county societies and individually, are taking a very great interest and are helping in every way possible, and the assurance contained in the address of Dr Van Etten will be vastly cheering to all those who are endeavoring to make this campaign a real success. The cooperation between organized medical practitioners of this state and the state authorities is immensely gratifying. With it, the progress that can be made in the preservation of health and saving of life is limitless. He trusted that no such misunderstandings, as have existed in the

past between practitioners and health officials of the state, may again arise.

It must be understood that the campaign for the eradication of diphtheria, while it is stated as being of five years' duration, is not for a limited period but for all time. The population must be kept immune and protected from exposure from carriers and the few cases that may arise. If the time comes, as it should, when the occurrence of a small outbreak of diphtheria in the state is regarded as a real menace to the public health, the public health authorities should be given specific power to take whatever action is necessary, as they now have in the case of smallpox.

Dr Nicoll stated facetiously that he wished Dr Harris, Commissioner of Health of the City of New York, would keep his "menagerie" of cultists at home and not permit them to invade the rest of the state.

Dr Louis I Harris, Commissioner of Health of the City of New York, gave figures to show that the number of diphtheria cases in New York City had been cut in half since 1919, and the deaths to one third. He quoted figures to show the prevalence of the disease and the deaths in the days before antitoxin, and said that if chiropractors and other cultists were treating diphtheria cases, the present death rate would be increased ten times.

Dr Harris said that it was poor psychology to set an impractical goal, such as that of "no diphtheria in 1930," but the present striking reduction in the number of cases and deaths would be far exceeded when it became the universal practice of physicians to immunize the young children of their families.

Dr William H Park, Director of Laboratories of the Department of Health of New York City, was the last speaker. He said that the subject that was assigned to him was "Debatable Points Regarding the Schuck Test." His paper is printed in full on page 347 of this issue.

THE ANNUAL BANQUET

The period of after-dinner speaking at the Annual Banquet of the Medical Society of the State of New York is the time when doctors preach—seriously or humorously—and thereby unconsciously and often unintentionally reveal their creed or attitude toward other persons and organizations. The Annual Dinner belongs to the President, and his speech and those of the speakers whom he chooses reflects his creed as it has developed or been modified during his year of office. In revealing his own attitude at the Annual Dinner on the evening of Tuesday, March 30th, President Van Etten also expressed the beliefs and aspirations of the members of the State Medical Society. The speakers were chosen as the spokesmen of the American Medical Associa-

tion which expresses the standards and ideals of the physicians of the Nation, of the organized educational forces especially the scientific schools, and of the lay organizations whose object is to rouse the people to a sense of their obligation in public health.

Dr Van Etten in his own address described the important work of the State Medical Society in taking post graduate education to doctors in their home towns, and in giving them basic instruction in modern discoveries and measures which have developed since their graduation from the medical school. Volunteer doctors, qualified as teachers, had been willing to go out to the doctors and give the required instruction. In this way the State Medical Society was bring-

concentrating our mind on syphilis, but in the midst of a thrilling demonstration our guide would introduce us to a president or a chairman or other notable, as if the leaders in the State Medical Society were on exhibition. We also got the impression that we too were on exhibition—all of which distracted us from the serious

business of absorbing the lessons of the syphilis exhibition. We students always have the specter of examinations before us and are urged to concentrate our minds on the subject that is under demonstration. We took our invitation to the exhibit seriously, and wished to make the most of it.

PAST PRESIDENTS' MEETING

A luncheon meeting of the Past Presidents of the Medical Society of the State of New York was held on Tuesday noon, March 30, in the Union League Club, 1 East 39th Street, New York, on the invitation and as the guests of Dr. O. S. Wightman. Those present were as follows:

1894—Dr. George H. Fox
1910—Dr. Charles Stover
1911—Dr. Wendell C. Phillips
1913—Dr. William Francis Campbell
1916—Dr. Martin B. Tinker
1917—Dr. Alexander Lambert
1918—Dr. Thomas H. Halsted
1919—Dr. Grant C. Madill
1920—Dr. J. Richard Kevin
1921—Dr. James F. Rooney
1922—Dr. Arthur W. Booth
1923—Dr. Orrin Sage Wightman
1924—Dr. Owen E. Jones

There were also present Dr. E. L. Hunt, Past Secretary and Dr. D. S. Dougherty, Secretary.

Dr. George M. Fisher, incoming President.

Dr. Lucius F. Donohoe, President of the Medical Society of New Jersey and Dr. J. Bentley Squires of New York City.

The living Past Presidents who were unable to be present are as follows:

1885—Dr. Albert Vander Veer
1892—Dr. Lewis S. Pilcher
1907—Dr. Frederic C. Curtis
1908—Dr. Arthur G. Root
1909—Dr. Charles G. Stockton

The Dean of those present was Dr. George H. Fox, who was President during the year 1894. Dr. Fox recalled the experiences of thirty-two years ago when doctors were individualists, and medicine was curative only. Very few physicians gave thought to preventive medicine, and medical societies confined themselves to the reading of scientific papers.

One who was familiar with the early beginning of the practice of civic medicine and of the activities of medical societies in public health, is amazed at the progress that has been made

and at the ready acceptance of civic duties by physicians, yet the present day activities of the medical societies of the State and the several counties was the result of the self-sacrificing work of a few leaders who had vision of what the public expected of the doctor and a broad outlook on the progress to come in the sciences of medicine and sociology.

Dr. Wendell C. Phillips, President during the year 1911 and President Elect of the American Medical Association, expressed the greetings of the Medical Society and spoke of the policy of the American Medical Association in emphasizing the role of the doctor in the preventive phases of the practice of medicine. He reverted to what is now entirely past history and explained some misunderstood points regarding compulsory health insurance which at one time seemed on the verge of adoption. In those days it seemed wise to get the best terms possible for the doctors, and some leaders felt that if the doctors of New York State would dictate how compulsory health insurance should be carried on, the position of the profession would be much stronger than it would be if the doctors acted entirely on the defensive.

Dr. N. B. Van Etten, retiring President, said that an outstanding medical event of the year was the understanding between the medical societies and the lay health organizations regarding their respective views of work and that now the two groups of organizations were working together with harmony and efficiency.

Dr. George M. Fisher, the incoming President, said that, after his long experience in the inner circles of workers in the State Society, he entertained no illusions regarding the work and time required in filling his new office, but he had arranged his business affairs so that he could give whatever time was necessary to the discharge of the presidential duties.

The meeting of the "Elder Statesmen" of the Society was so full of possibilities for usefulness that it will probably be made a feature of every Annual Meeting of the State Medical Society.

From the shutting must of death,
 From the failure of the breath,
 I made a battle-horn blow
 Across the vales of overthrow
 O hearken, love the battle-horn!
 The triumph clear, the silver scorn!
 O hearken where the echoes bring,
 Down the gray disastrous morn,
 Laughter and rallying.

Dr Brown said that if the doctors were decreasing the demand for their curative services, they were just entering upon a greater field of education, which included physical examinations before the development of disabling disease, the acceptance of instruction regarding diet and hours of labor and rest, and a multitude of other subjects in preventive medicine to which people now

give heed only when they are visibly threatened with pain or sickness

Mr Lloyd P Stryker, Counsel of the State Medical Society as plaintiff, made an impassioned plea that the jury of doctors would support the Practice of Medicine Bill

Dr George M Fisher, the incoming President of the Medical Society of the State of New York, made a brief inaugural address in which he expressed the hope to carry on the forward-looking policies of the present administration

Dr Edward R Cuniffe, Chairman of the Committee on Arrangements, presided, and made a happy impression by his brief and pointed introductions of the speakers

THE SYPHILIS EXHIBIT

By A MEDICAL STUDENT

The demonstration of syphilis in the State Medical Society was inspiring to a medical student. Although in his college courses he was "fed up" on collection of museum specimens and surfeited with more cases than he could digest, the end of a three hour inspection of the ensemble of specimens, cases, charts, lectures and demonstrations found his appetite for knowledge as keen as at the beginning. The reason was that the exhibit was more than impersonal encyclopedia, it visualized and humanized the subject as it showed persons affected with a disease to which its victim was a side issue. The human point of view was rather novel to the medical student who was accustomed to look at only the scientific aspect of syphilis. The demonstration would be deeply appreciated in any medical school as a means of teaching syphilis to a body of students

We are gratified to find the leading syphilographers of New York demonstrating in the several cubicles and were reassured by their willingness to impart instruction of an elemental nature such as students needed and which the practicing physicians also seemed to relish

While the motion pictures and charts were self-explanatory, the patients who were demonstrated by competent men impressed us most. A patient who exhibits himself and permits himself to be examined is worthy of recognition as an essential part of the teaching faculty

Lack of time and the pushing of eager listeners behind us compelled us to give only five minutes to each of several demonstrations to which a whole hour could well be devoted in the medical school, but in that brief period we got a visualization of the subjects and an inspiration which will be an incentive to further study at the medical school

Despite the superficiality with which the time-pressed student was forced to hasten through the demonstration, certain exhibits were outstanding in their impressiveness. It was a privilege, for example, to view patients with pulmonary and gastric syphilis which the medical school professors have repeatedly termed as extremely rare and therefore have passed over in lecturing with no more than mention of their possible occurrence. The same was true of syphilis of the eye and ear and tended to impress the infinite pains which had been exercised to make the exhibit complete in minor details

The experimental work on syphilis was a profoundly interesting exhibit, and was perhaps the one requiring the most time to impart the maximum amount of knowledge to the student who was utterly unacquainted with what had been done in the inoculation of rabbits with syphilis

The serological diagnosis syphilis was adequately rehearsed by an actual laboratory demonstration of the Wassermann test and the Kahn test. The latter was a novelty to us

A certain exhibit was spectacular from the viewpoint of the morbidly curious, but it was also a gratifying demonstration of what other agencies can do good where the best medical knowledge has been baffled. This was the repair of defects which have been left in mouths of syphilitic victims and which have been declared inoperable by surgeons, but which have been benefited by dental appliances. Roof plates were on view which would return power of speech to those who were speechless because of gross defects in the palate and roof of the mouth

In conclusion we wish to add a point in psychology. We had been invited by a physician who impressed upon us the unique opportunity of

PRESIDENT'S ADDRESS

By N B VAN ETTE, M D, NEW YORK

The Minutes of the Annual Meeting of the Medical Society of the State of New York, March 31, 1926

Philosophize as we may, none of us are able to step out of the procession in which we are marching, to obtain a viewpoint of sufficient perspective value to estimate the progress of our own time, or gain a reliable vision of where we are going. We are quite impressed with our own importance and prone to forget that we started our careers from foundations erected by our immediate predecessors, and that those who succeed us will be helped or hindered by the measure of our accomplishment.

A proper application of precedent to prediction may perhaps be obtained by going back a little, and so I am going to try to relate the high lights of the story of a doctor of our preceding generation.

Graduated from the Albany Medical College in 1853 he entered country practice, where a contemporary speaker says only good doctors succeed, served through the Civil War as regimental and brigade surgeon, operating in front-line service, built a smallpox hospital, cleaned up an infected city, literally white-washed it with the assistance of squads of negroes pressed into service, observed the horrors of unclean military field surgery, as recorded in the History of the War of the Rebellion, finished the service with the rank of colonel, resumed practice in the country, the town having become a railway terminal, he became the railroad surgeon, when accidents were of daily occurrence, became a master of traumatic surgery, greatly worried by infections, developed a technique and secured results approaching those of today, by practicing intensive personal cleanliness, using instruments immersed in boiling water, almost boiling his own hands in those days, before the knowledge of bichloride or the rubber glove, applying dressings wrung out of boiling water so hot that they almost cooked the tissues, not realizing that he was almost practicing modern aseptic surgery, meanwhile carrying on a large general practice, driving night and day, in rain and snow, in every season, the best and fastest horses he could buy. Answering cheerfully every demand regardless of remuneration, doing emergency life-saving operations in any farm house with no assistance, giving an anæsthetic and operating at the same time, taxing his ingenuity to meet unexpected situations far from the cities from whence he might have called expert help. Having no nurses except members of the household, often dangerously inept, spending many hours with children choking to death with diphtheria, swabbing throats at risk of his life, doing emergency tracheotomies and losing the battles be-

cause he had no specific remedy, reading omnivorously current medical literature, interested in local community conditions, not an office holder, but a party leader, respected because of his judgment based upon attainment, an interested leader in medical organizations, he possessed the love of many people and died in 1894 at the height of his career, after 41 years of continuously active practice of his profession with a vision of our modern medicine just opening out before him.

An inscription seen upon a tablet in a church recently fittingly described him: "In him a venerable aspect and dignified manners were united with a strong and sagacious mind stored with the treasures of ancient and modern learning."

He was the finest type of general practitioner of the last generation.

The doctor of the last thirty years has seen remarkable development of surgical technique, a development of diagnosis based upon bacterial investigation, a better understanding of disease transmission and of methods of epidemic control, treatment of disease progressively less empirical and development of methods of disease prevention that have scientific foundation and proven value that encourage us to believe that many other enemies of the human organism may be defeated by specific remedies.

For the prevention of typhoid fever, tetanus, smallpox and diphtheria we have specific vaccines so reliable that those who know about them and fail to use them are morally culpable.

In my opinion this statement is quite as applicable to the lay people who know, as to the physicians who know. It is a national disgrace that we had more than 4,000 cases of smallpox in the United States in one month of last year, with a total of 31,037 for the year. It is a national disgrace that our people care so much more for matters of convenience than for the protection of the lives of their children, that they care so much for what they are pleased to call personal liberty, that they are willing to expose their fellow citizens to the potential ravages of a loathsome disease. It is with no feeling of pride that we compare the record of that month with 4,000 cases of smallpox, with the record of no cases of smallpox in that same month among the disciplined and vaccinated citizens of Germany.

In the light of the truth of this statement one easily sympathizes with the pessimism of many at the beginning of any public health campaign. Toxin-antitoxin as a preventive of diphtheria has been known ten years and yet

SECRETARIES' MEETING

A luncheon meeting of the Secretaries of the County Medical Societies was held at one o'clock on Wednesday, March 31st, in the Waldorf-Astoria Hotel with the following present

From the State Society

N B Van Etten	President
W H Ross	First Vice President
G M Fisher	Incoming President
J S Lawrence	Executive Officer
Frank Overton	Executive Editor

From the County Societies

W H Betts	Westchester
E P Kolb	Suffolk
A D Jacques	Nassau
L F Schiff	Clinton
E Bieber	Chautauqua
S W Sayer	St Lawrence
F J Schnell	Niagara
J P Henry	Monroe
H A Peck	Albany
F H Voss	Ulster
J A Lichty	Ontario
E E Smith	Queens
I J Landsman	Bronx
D S Dougherty	New York
W W Britt	Erie
J D Carroll	Rensselaer
T M Brennan and W Ludlum	Kings

Dr Harrison Betts, who was elected President of the Secretaries organization last year, presided

Dr I J Landsman said that the Bronx County Medical Society is putting on post graduate courses patterned after those of Kings County. He also described the promotion of periodic health examinations by the distribution of form cards with considerable success. One doctor had examined three hundred patients during the last year and other doctors were entering into the work.

Dr J P Henry told of the relations of the Monroe County Society to civic organizations, such as the Chamber of Commerce. He said that the lay organizations were beginning to go to the County Society for advice and were willing to let the doctors arrange to do the professional work in their own way, while the laymen did the administration work that was necessary in order that the doctors may work effectively and with satisfaction to themselves and the patients.

Dr G M Fisher, incoming President of the State Society, asked the doctors to adopt business methods in filing and answering letters. He suggested that each Secretary could at least have a letter file in which he could keep his correspondence where he could find it.

Dr, W W Britt, Chairman of the Committee on Economics of the State Society, told how he had gone to the county societies of the Eighth District Branch and got them to sponsor the Health Examination program.

Dr Van Etten, President of the State Society,

told of his observations of the meetings of the District Branches and suggested a greater development of the social side of the organization. He quoted the meeting of the Third District Branch as the best one for sociability and acquaintances. It lasted two days, and many wives of the members were present and added to the enjoyment and good fellowship of the meeting.

Dr D S. Dougherty, Secretary of the Medical Society of the State of New York, and also of the New York County Society with 3,500 members, gave an outline of the history of the development of the present organization of the State Society and urged the County Secretaries to adopt business methods in the conduct of their offices, and especially to answer letters promptly.

Dr T M Brennan, Secretary of the Kings County Society, read a paper in which he outlined the activities of the Society, especially in civic lines.

Among the activities of his Society, he mentioned the following:

1 The promotion of intensive courses in medicine and surgery jointly with Long Island College Hospital Medical School.

2 The management of the Friday Afternoon Lectures on the more popular medical topics.

3 The consideration of civic topics at the monthly meeting of the Society at which laymen were invited, such as the Police Commissioner and the President of the Chamber of Commerce.

4 The prosecution of illegal practitioners.

5 The promotion of periodic health examinations along original lines.

6 The preparation of leaflets on various phases of disease management.

7 Studies into the cost of sickness.

8 Co-operation with the other county societies in Greater New York in the study of civic problems.

Dr Brennan promised to expand his paper for publication in this JOURNAL.

Dr W H Ross, a member of the newly established Board of Trustees of the State Society spoke of the acceptance of money from laymen and lay organizations for carrying on the work of the Society and said it was already being done in the counties of Kings, New York, and Suffolk, and no one had criticized it.

Plans were discussed for a general meeting of the Secretaries to be held in the early fall, preferably in connection with the annual conference of Health Officers in Saratoga Springs. On motion it was voted to request the Council to authorize the meeting.

It was the consensus of opinion that meetings of the Secretaries of the counties of the District Branches should be held in connection with the District Branch meetings.

The discussions lasted for two hours and all those present considered the secretaries' meetings to be well worth promoting.

meetings every two weeks. First dissecting the old law, and then adjusting collected opinions, it evolved a new medical practice act, which was approved by the Council and published in the November JOURNAL.

An essential amendment carrying annual re-registration resulted from frequent conferences with the Department of Education and with Legislators and State Officials concerned with public health administration. The chairmen of County Society Legislative Committees met and agreed that the act was in the interest of the public health, and voted to support it, but when the bill was discussed in meetings of the County Societies, many physicians exhibited absolute ignorance of the measure, had not read it in the Journal, and expressed surprise that they had not been individually consulted. Meanwhile the measure had attracted the favorable attention and engaged the active support of lay organizations interested in the advancement of the public health through the employment of persons qualified by education for the care of the sick, and largely by their help the bill will probably pass both houses of the legislature, and receive the approval of the Governor.

A study of the attendance at Medical Meetings reflects the interest of many physicians. The presentation of a new scientific observation or a new exposition or new light upon an old subject or a symposium participated in by well-known observers of a well-worn but frequently met pathological subject will attract large audiences, but a meeting for the special consideration, of economic questions vitally affecting the physicians' welfare, or even affecting the physical welfare of the public, will be slenderly attended. The relation of many physicians to constructive medical legislation, or even to defensive legislation against the quackery or folly of those who intentionally or mistakenly try to destroy the confidence of our citizens in well-established scientific truth, is very much the relation of large numbers of our citizens who ignore their civic responsibilities by failing to take an interest in primary politics, or even if the exercise of the franchise in the selection of their representatives. In the presence of such an exhibition of self-indulgence, one can not honestly credit such physicians or such citizens with altruistic inclinations.

"Which would you rather be, a cup to be drained, or a measure to be filled?" The doctor of the future will answer that question in the same manner as doctors have always answered it but there will be more satisfaction and potency to draw from him than ever before. His education will keep better step with the progress of preventive medicine, and with a clearer popular understanding, with a brush-

ing aside of the mysteries of medicine, people will follow his well-defined leadership toward the goal of health efficiency.

We neither need nor desire a less competent physician, the curriculum will be adjusted to meet the changing order. I would rather lengthen it than shorten it, but I would not terminate it later. I would add a year or two at the beginning of the course and make his ancillary education more definitely medical. I would broaden his vision by showing him the history of medicine, and I would improve his manners by a real course in medical and social ethics. I would teach him anthropology. I would have him taught methods of complete investigation, so that no subjective symptom should be dismissed without attention. I would have him study physiotherapy so that he would be able to appraise its value. I would require of him a period of the general practice of medicine so that he might acquire broad fundamental knowledge before he should be permitted to enter a post graduate school to qualify himself for specialized endeavor.

Every doctor needs post graduate education every year, and most of them feel that they are unable to leave their active work to take courses within the walls of teaching institutions. They may be able to attend meetings of medical societies where they usually listen to ultra scientific discussions which are often unintelligible except to a few advanced students, most readers thinking that unless they present rare cases their work will not attract attention.

The great majority of physicians desire what Osler used to call brain dusting, and need refreshing of their knowledge just a little beyond the work given to the fourth-year medical student. We have offered during the last year post graduate education to the doctor in the vicinity of his home. Courses in obstetrics, gynecology, pediatrics, cardiology and tuberculosis have been asked for and given in many counties and have been attended by large numbers of intensely interested physicians. The rapidly increasing demand for this teaching is an index of its complete success.

We have advocated the annual birthday examination of apparently well persons and our eleven thousand members have each received a manual and charts describing and illustrating the details of such examinations. Standardized health is possible. Industry is interested and will require health measurement of applicants for employment. Annual health inventories will be taken and corrective measures will be used to maintain the highest standards of health efficiency. With increasing competition the sick will not be able to maintain the pace set by the healthy and will obviously fall out of line.

the public does not clamor for protection of their children that they pretend to love so dearly. Thirteen thousand of them died from diphtheria last year and there was no excitement about it, 700 died in the City of New York, and there were 10,000 cases here. If 10,000 people had been burned in a fire and 700 of them fatally, the country would have gone into mourning. Is it any less disastrous to have them die from a preventable disease?

In the city of Auburn with 36,000 people, as the result of an intensive four-year campaign, conducted under the direction of Sears, of Syracuse, there have been no deaths from diphtheria in the last two years. Are the children of Auburn more valuable than the children of Buffalo or New York, or have these Auburn people greater intelligence?

Is it possible to arouse opinion to an appreciation of this situation by appealing to affection for children or to the intelligence of interested citizens? Is it possible for the public to realize the handicaps of the 19th century doctor of whom I spoke, and carelessly toss aside the enlightenment and the proven defenses of this 20th century? Will a large number of people continue to close their eyes and ears to honest scientific endeavor and continue to depend upon, rabbits' feet, or horse-chestnuts, or amber beads, or other charms to carry them safely? Is it possible to educate people to stop coughing and expectorating in one another's faces while enjoying the intimacies of New York City transportation?

Shall we be able to teach people the dangers of the common cold, and the facility of its transmission? The involuntary subway intimate who salutes your nostrils with the odor of garlic or other edible perfumery, is much less subtle than the one who sprays the air with colonies of disease germs through unguarded cough or sneeze. Do we often enough, and loudly enough, tell the world that tuberculosis may be transmitted in this manner? Has this last gripe epidemic carried a convincing lesson to a large number of people? Is there any promise of successfully entering the consciousness of the citizens of a great city so that the sense of self-preservation may be aroused?

The intelligent and able citizen carries his family into suburban open country to escape pestilential communication. He arises before dawn to get to his work with the mob at 9 o'clock. He leaves with the mob again at 5 o'clock, and returns to his home after dark, tired by the struggle, but at least conscious that he is trying to develop a healthy family.

The fresh air, open window campaign of the tuberculosis committee several years ago undoubtedly was fruitful. The popularity of out of door sports and Boy Scouts hiking is undoubtedly inspirational in health promotion,

and should help in our campaigns for the employment of specific agents in preventive medicine if we may be able to present them to the public in a forcibly intelligent manner.

A five-year campaign to eliminate diphtheria from the State of New York, with the inspiring cooperation of the State Department of Health, the State Charities Aid Association, the Metropolitan Life Insurance Company, interested philanthropic individuals, the Homoeopathic State Medical Society and the Medical Society of the State of New York, to be carried on through our Public Health Committee, by and through all physicians of the State, has been under way since the first of the year. My correspondence shows that most of the counties of the State are actively interested, and well defined county campaigns are already functioning in Erie, Monroe, Onondaga, Schenectady, and Albany Counties, headed by the County Medical Societies, and enlisting the working interest of local lay organizations.

The goal is possible of attainment and a concurrent enlightening of public opinion, and an awakening of public interest in the prevention of disease may have an inestimable future value.

Public interest in public health is daily dis-closed to those who are studying social conditions. Critical attention, tempered with impatience, is being given to all forms of health service. The layman protests that the nursing situation is intolerable, that the supply does not meet the demand, that the cost is prohibitive, and the service independent. Our Society has been trying to appraise the truth of these complaints, to discover the reason for them, and if possible a remedy for them during the past year, and will continue to study, perhaps beginning with the demand of the bed sick patient, the cost, possibly the distribution of it, and the character and curricular qualifications of nurses. We have already a large mass of informative material.

The Mayor of our greater city finds our greatest hospital inefficient and its psychopathic pavilion a public disgrace. His keen interest in public health is only in part stimulated by physicians.

A year ago pursuant to the order of the House of Delegates, I appointed a Committee to study the laws under which the practice of healing arts is conducted, and to prepare a new medical practice act which would amend the law in accordance with the desires of physicians, and in the interest of the public health. The committee was chosen with the hope of harmonizing opinion within the medical profession, and outstanding representatives of groups known to have exhibited divergent views were appointed. This committee labored diligently from the first of July, holding formal

THE USE OF THE SCHICK TEST BEFORE AND AFTER INJECTION OF TOXIN-ANTITOXIN FOR IMMUNIZATION

WILLIAM H. PARK, M.D.
NEW YORK CITY

The Minutes of the Annual Meeting of the Medical Society of the State of New York, March 31, 1926.

OWING to the different conditions in different localities the use of the Schick test is advisable in some and inadvisable in others. This leads to some confusion in the advice given on the subject. It is evident that the Schick test has nothing to do with immunization. The result of its use simply indicates immunity or not immunity. It is desirable to use the Schick test when considering all the circumstances it aids rather than retards the use of the immunizing injections. The Schick test itself depends on a number of factors as to its successful use. The toxin prepared by the laboratory must be properly standardized and put in suitable glass tubes for its conservation. The physician using the test must be skilled in its use as otherwise the fluid will not be injected in proper amount and into the skin rather than through the skin, he will not be able to decide on a true reaction or a pseudo-reaction but will have to consider all pseudo-reactions as true reactions so as to be on the side of safety. When the toxin is properly prepared and properly given and the test is properly read the Schick test is very dependable. In large cities such as New York, Buffalo, Rochester, and so forth, the majority of the children going to school give a negative Schick test and the use of the test in the schools is believed to help rather than retard the use of the injections. In the first place by relieving the physicians of giving the three injections to those who are immune and again by being able to say to parents that those who are not immune will receive the injections. In small towns and country places the majority of the children are not immune and here it is the wisest custom not to give the preliminary Schick test.

In pre-school children the conditions are different, even in large cities the majority of the children are not immune and in children of these ages not only in the country but in the cities the Schick test is wisely omitted. In those of the boroughs of New York City we avoid the difficulty by giving the toxin-antitoxin in the first injection strictly subcutaneously. This acts both as an immunizing action and as a Schick test.

The use of the Schick tests after immunization stands on a different footing. This should be done wherever possible because with the best results only from 90 to 95 per cent become immune. If a retest is not done we are never quite sure which children are immune and which children are not. In the earlier days of the use of toxin-antitoxin the Schick test was absolutely necessary because it was so important to know

just what percentage of those not immune became immune after the injections and how long this immunity lasted and also whether those who did not become immune would become so after given the second series. It was through the means of the Schick test that we learned that good preparations gave immunity on the average of 90 per cent of the children injected and a second series immunity in most of the remaining 10 per cent and that this immunity lasted in the very great majority for over five years and so far as we know in the large majority for life. We also learned that those who are resistant to one series of injections could in the very great majority of cases be immunized by the second series and that no child was absolutely resistant to immunization.

Harmlessness of the Toxin-Antitoxin Injections—Probably over two million injections of toxin-antitoxin have been given in New York State alone and no accident of any seriousness has happened. In the whole world I know only of three accidents. One, years ago in Dallas, Texas, where through a mistake of toxic preparation was used. This accident led to the biological manufacturing plants adopting, at the suggestion of the Hygienic Laboratory, rules and regulations which must absolutely prevent any such accident happening again. The second was an accident which happened in Vienna last year, which was at first advertised as the result of changes in toxin-antitoxin, that is, a product which was harmless became on standing harmful. Within the last few weeks, however, a communication from Vienna states that it has been shown that through an accident diluted toxin was sent instead of toxin-antitoxin. The third accident which fortunately had no serious results was the use of toxin-antitoxin immediately after thawing the frozen product. The fact that toxin-antitoxin would temporarily become poisonous on thawing the frozen product had not occurred to anyone. It is interesting to note that the new standard preparation of toxin-antitoxin universally used in this country which contains only one-thirtieth of the amount of toxin used in the first preparation is absolutely harmless when used after freezing and thawing.

Toxin-antitoxin produces a moderate amount of local inflammation in two types of cases due to two different substances. Those who have absolutely no immunity show a local reaction through the slight excess of toxin in the toxin-antitoxin mixture. This is of only very moderate severity and lasts only a few days. This is especially apt to occur in young children. In

Physicians will not submit to being grouped in a panel as under a compulsory health insurance scheme and such work must ultimately fail because only the poorest practitioners will engage in it. The highest class doctor will not wear an identification tag as a member of a panel. Public Health Education of all the people will react favorably upon the physician materially if he will take advantage of it, the inspiration of periodic physical examination advice will be valuable to the physician if he will adjust himself to it, not one of those asking his advice are physically perfect, careful study of each one will reveal some condition that requires correction, he will help himself materially and improve his scientific equipment by following the leads that are presented to him. The physician of the future may again become priest, and counsellor as well as doctor. Investigation stimulates interest in the investigated. The field is fertile and largely unplowed. With 770 persons for each doctor in the State of New York to take care of, there is small excuse for idleness. He who tries will find plenty to do, and he who constantly studies will help himself and his community.

Organized medicine in this State has more cooperation than ever before, the Governor has a greater appreciation of health value than any of his predecessors. The State Department of Health sees the development of efficiency in public health to the highest standard through and by the practitioners of the State. Lay organizations, religious organizations, philanthropic individuals, commercial organizations see high efficiency and prosperity and happiness through preventive medicine conducted by and through physicians.

A general appreciation of interdependence of organizations interested in mass welfare seems to prevail. That public health is purchasable, has become a high light in the imagination of those really interested in improving civilized living, and also a realization that money alone will not buy it. While it is perfectly possible to bring up a district to a condition approaching an ideal, by an intensive campaign conducted with lavish expenditure and the whole time employment of doctors, except as a demonstration it has small value, because it can not be sustained efficiently and because momentum will slacken with the withdrawal of the financial drive.

The physician is an individual, his development from birth to diploma has taken twenty-seven years, has cost more time, money, and effort than is required for the development of any other kind of worker. He sees no financially attractive prospect. He sees a sentimental reward in appreciation of his work by the people he serves, a respectable and possibly a comfortable maintenance for his family. His life is full of interesting potentialities. The prospect of service in the field of preventive medicine is alluring, but he can not be hired as a class to effectively render that service. He must be inspired with the value of such work and his own importance to its success.

A campaign in Preventive Medicine, such as one to eliminate Diphtheria can be started by one or more executive organizations, but it can not be carried to successful and lasting conclusion except by the physicians meeting this spirit of cooperation with the warmest reciprocity and the will to put over and maintain a complete victory over a dread disease.

The physicians of this State must awaken and rise to the leadership that is waiting for them not only in the fields of preventive medicine that have been well demonstrated, but in the conflict with enemies that are still surrounded by obscurity, and also in the fight for supremacy over an apparent racial decadence through reckless breeding and the lowering of our moral and physical standards by luxurious living.

The Medical Society of the State of New York is largely representative of the best of the profession. It can do great things if it will accept now those unexampled opportunities for leadership toward the highest ideals with thorough appreciation of the fact that the highest standards of public health can only be attained by and through the efforts of physicians.

With reverence for the honorable traditions of our sires, and with the deepest respect for the intense individualism of physicians, which is an evolutionary result of contact with the real confidential, unmasked conditions of life, where real decisions are made, and where soul and body and history are unreservedly disclosed as inviolate communications, by the grace of education and a broadened and enlivened spirit of service we approach the dawning of a new day in medicine and a new vision of useful leadership.

PHYSICAL AGENTS IN THE TREATMENT OF SOME COMMON DERMATOSES

By ADOLPH ROSTENBERG, M.D.
NEW YORK CITY

REVIEWING the progress in the treatment of skin diseases during the last two decades, we find that physical therapy has by far surpassed the efficacy of drugs in great many cases.

The etiology of the majority of skin diseases, in spite of incessant research work, is still obscure and a matter of speculation and theory.

Hence the only rational therapy, based upon attacking the underlying cause, seemed impossible and the treatment was necessarily more or less symptomatic.

Fortunately, just in this group of cases, physical therapy has proven of very great value.

Of the various physical agents introduced, the X-ray undoubtedly takes the first place, thanks to the perfection of the modern transformer machine and the Coolidge tube, which made it possible, to introduce more simple and accurate methods of measuring the dosage.

Today it is admitted by all leading dermatologists that the X-ray is the most successful single therapeutic agent in dermatological practice. This fact can be easier understood when we come to realize how wide their range of usefulness is, as they are capable, by varying the dosage, of either stimulating or inhibiting or destroying the reproductive property of animal tissues, particularly is this effect shown upon embryologic, secretory and certain groups of abnormal cells which play an important part in the production of inflammatory or neoplastic skin diseases.

This explains why X-ray treatment is so successful in the therapy of all eczemas, which undoubtedly is the most commonly met skin disease, representing an incidence of 60 to 70 per cent of all dermatoses. The pathology of an eczema shows an exudative catharr of the skin, either acute, subacute or chronic, with a hyperplasia and infiltration of cells, and in the chronic type a hyper and parakeratosis in addition.

In the acute type of eczema, better designated as an acute dermatitis, the cause is usually known, especially in the large group of toxic dermatitis, which is produced by the action of an external or internal toxin. Here the removal of the causative factor is naturally the first step, if the dermatitis does not subside with the application of a simple protective and cooling lotion, a few additional small doses of X-ray will usually be of great benefit.

In chronic eczemas, the X-ray acts almost as a specific, in inveterate cases, which will resist all sorts of treatment, lasting for years and reducing the patient to a nervous wreck through their

persistence and intolerable itching, yield to a few units of X-ray, best applied in fractional weekly doses.

The same *modus operandi* is used in lichen planus, its various forms, and in psoriasis, which both in their pathology are inflammatory skin diseases. My personal experience with the X-ray in psoriasis has been extremely gratifying, although my optimism is not generally shared. With the exception of a very small minority, even the most inveterate cases either cleared up entirely or were at least greatly improved after a few treatments. The books still state that psoriasis does not itch as a rule, my experience leads me to believe that just the contrary is the case, and I also feel that the continuous scratching irritates the lesion and prevents to a great extent their clearing up with the use of ointments. The X-ray usually relieves the itching before it clears up the patch. Unfortunately does the X-ray not prevent recurrences any more than any other mode of treatment, only it seems to me that the intervals of freedom are longer, the recurrent attacks do not seem to yield to the X-ray treatment as promptly as the first one, and here a sound of warning is in place, as the patients, who invariably prefer the X-ray to any other treatment, clamor for more and more and are apt to be overtreated with consecutive ill results.

While the X-ray has no direct effect on skin diseases caused by animal parasites, bacteria or fungi by destroying them, indirectly, however, they are also of great value in these cases. This is foremost evidenced in the treatment of ringworm of the scalp in children. Heretofore, a successful cure of this wide-spread disease was well nigh impossible, the unfortunate patients would suffer and infect others, until they reached puberty, when the disease would usually clear up spontaneously. Today all that is necessary is to epilate the scalp in one treatment according to the Kienboeck-Adamson method, after which the affected hair falls out together with the offending organism. The same principle underlies the effectiveness of X-ray treatment in cases of favus and sycosis barbæ.

The treatment of acne vulgaris, before the use of X-ray, was as unsuccessful as in tréna. Now, the Roentgen ray is almost universally used for the cure of this trouble. The rational of this treatment seems self-evident when we remember that the underlying fundamental cause of acne is a hyperfunction of the sebaceous glands combined with a follicular hyperkeratosis, which both will disappear under the inhibiting effect of the X-ray.

These few dermatoses enumerated do not he-

older children and adults we have a reaction due to the tissue reaction to protein substances. These substances produce in some, who are sensitive to them, quite a marked reaction so that they may be incapacitated for work for a day or two. These reactions are absolutely without danger but are quite annoying. Because of these reactions the general immunization of adults is not recommended except after the Schick test and a control so that those who show marked pseudo-reactions may be omitted from the injections or given them in divided amounts.

SENSITIZATION

There is a fear among physicians about giving diphtheria antitoxin as an immunizing injection and about giving toxin-antitoxin because of the serum globulins in the two preparations. So far as immunizing injections of antitoxin are concerned, there is no question that there is a definite sensitization of those who are injected. There is, however, no evidence that this sensitization produces a change which makes later injections of antitoxin or serum dangerous.

I have gathered together some thirty cases in which injections of antitoxin or serum were given some three weeks to six months after the immunizing antitoxin injections. In several of these children there was an immediate reaction with rash and temperature. The rise of temperature in one was four degrees and another two degrees. These rises of temperature were quite transient and in the course of four hours the temperature had returned to normal. With the temperature there was a general urticarial rash which lasted for one or two days. This is what we call an accelerated reaction. The reaction in these children besides being hastened may have been somewhat more severe, but there was no sign of danger and in fact within a few hours the children were absolutely in good condition except for the annoyance of the urticarial rash. So far as sensitization with toxin-antitoxin is concerned, we must remember that the amount of serum globulin given in an injection is very small, the amount is equivalent to about one-three thousandths of a cc of horse serum.

Hooker several years ago showed that persons who had received toxin-antitoxin injections gave a higher percentage of positive skin reactions when tested one year later. In repeating his tests Schroder and I found out that there was indeed a slight increase in the normal percentage of persons who gave a slight skin reaction. None of these reactions, however, were severe such as occurs in occasional cases with or without toxin-antitoxin injections.

I have looked up the records of more than fifty persons given doses of serum or of antitoxic globulin solution who received toxin-antitoxin injections from one to three years previously and compared them with an equal number of children receiving injections of serum who had never received these injections. The results of the comparison were very interesting. Practically the same number of the children reacted in those who had received and in those who had not received toxin-antitoxin previously. There were a few reactions in those who had received toxin-antitoxin which were a little worse than in those which had not received it. Whether this difference was due to the previous injections of toxin-antitoxin or to the peculiarities of the children is uncertain but it probably is fair to consider it as due to the toxin-antitoxin. The difference, however, was so slight in amount as to be negligible so that no one would think of withholding toxin-antitoxin because of it.

There is no question in my mind that the cases described as anaphylaxis by Stewart of Minneapolis were simply examples of ordinary severe serum sickness which had little if anything to do with the previous injection of toxin-antitoxin. I have talked this matter over with Dr. Sears and from his large experience he agrees with me that there was nothing whatever for physicians to worry about in the giving of toxin-antitoxin injections. However true this may be there is a feeling about among some that it would be wise to change from toxin-antitoxin to toxoid. We have for several years used experimentally a toxoid prepared by us with moderately good results. We have also used a preparation of toxoid made by Ramon of Paris with results equally good to those obtained from our toxin-antitoxin and we have now prepared a large amount of toxoid according to the method described by Ramon. We intend to test this out very thoroughly and if the results are equal to toxin-antitoxin, we will probably make the change, but there is absolutely no reason to hurry and it is our idea not to make the change for at least another year. As a rule toxin-antitoxin injections give slightly more reactions in the very young and less reaction in the older children and adults. This is due to the fact that the very young children respond to the slightly under-neutralized toxin while older children respond to the proteus in the toxoid. The toxoid is practically without toxic effect but has about thirty times as much of the broth and culture proteins as the toxin-antitoxin.

mind that the approach to such a study should be definitely based on the promise that the fundamental treatment of the delinquent child should be psychiatric in character. From this viewpoint the child is considered to be what he is and to react as he does by virtue of certain physical, emotional and instinctive factors within him in their relationship to his heredity and environment. He is thought of being in a process of unceasing development, the roots of any transient phase of which reach far back in the scale of his biological development. Obvious as this viewpoint is to those of us concerned with psychiatric problems, the point has not come home so clearly as one would hope to many of the institutional directors. The following brief survey of the situation should make this more apparent.

There are three classes of institutions caring for delinquent children in New York State—those controlled entirely by the State, those maintained in part by public funds and under more or less direct supervision by the State, and institutions whose maintenance and policies are directed by private individuals. In addition to this inspected group there are numerous private homes with quite limited supervision. It is obvious that an institutional system drawn from the various sources just enumerated, must have as many different methods in dealing with delinquent children as there are institutions. No process of standardization can be attained and the average level reached is necessarily low.

Other factors besides lack of suitable supervision operate to prevent the intelligent and scientific study of the child for his resocialization preparatory to re-entrance into the life of the community. Secondary only to standardization is the influence of the penal code—an eye for an eye—that so strongly colors our prison systems and which has subtly permeated throughout the institutions for the care of the wayward child. One need not enter into the various causations that have made this belief so persistent, but one must comment upon the fact that the approach to the problem of delinquency still remains largely physical in character. Miss Margaret Reeves, of the Bureau of Juvenile Delinquency, Russell Sage Foundation, has estimated that in the institutions of which I am now speaking, approximately 25 per cent still employ purely penal methods, 25 per cent have a slight recognition of the mental aspect, 25 per cent fully recognize the psychic elements in the situation but lack the funds to provide suitable facilities for the study of such, and 25 per cent modernized in this respect. I believe Miss Reeves has been generous in her estimations.

A third factor as has just been intimated is the lack of funds, with which to "carry on." This is especially true of the private institution where profit or economy, not service, is the controlling

element. The superintendent, broadminded and thoroughly in accord with modern methods though he may be, is more or less a slave to his budget or to the whims of a board which sees nothing in a new idea but social uplift, sentimentalism, faddism and unnecessary expense.

Even the Judiciary brings its quota of misunderstanding to the problem. The Children's Court, an institution of some two years duration, has had perplexing problems so numerous as to preclude a leisurely and thorough study of what the institutions have to offer in the matter of treatment of the delinquent child. As a result the justice too often assigns the wrong type of child to the wrong institution, and thus the careful classification and study of children within the institution itself becomes increasingly difficult.

This general survey as to some of the most important factors mitigating against a more modern approach in the treatment of the delinquent child has not acquired a plaintive tone, I trust, nor has conveyed the impression that psychiatric methods in children's institutions is the panacea for all its troubles. It is only a help at best, a stethoscope with which to probe for the seat of the trouble and to leave to a more highly developed curative technique which the future will doubtless bring forth. Enough has been said, however, to lay the ground work for the more detailed discussion of the several institutions which follows.

Of the 879 supervised institutions in New York State, twenty are conducted for delinquent children, while several receive only truants or those with improper guardianship. This does not take into consideration the various orphanages, many of which accept delinquent or neglected children under special conditions, or of the mentally defective delinquents in the several State Schools for Feeble-minded. Of the group of twenty just mentioned, three are controlled exclusively by the State, seven are maintained by the Roman Catholic Church, four are non-sectarian, two are Jewish, one Protestant, two Episcopalian, and one is municipal in management and is under the local Board of Education. Its scope is becoming increasingly delimited to the care of the truant child. Approximately six thousand children are cared for in this manner, less than a third of which are in State institutions. It should be recalled in this connection that with a single exception all the private institutions carrying on this most important program receive a considerable share of their funds through public contributions. Analyses of their various capacities show that the State institutions can care for 2,124 children or 26 per cent, the Catholic organizations 4,042 or 60 per cent, non-sectarian 832 or 11 per cent, Jewish 478 or 6 per cent, Episcopalian Churches 295 or 5 per cent, and Protestant 57 or 1 per cent. Thus it will be seen the study resolves itself into the considera-

gin to exhaust the list of all skin conditions, in which the X-ray could be used to the greatest advantage, but to enumerate them all would be entirely out of the scope of this paper

Next in importance after the X-ray as a physical therapeutic agent, I consider the high frequency current, especially as utilized in the modern diathermy or endothermy apparatus. Two modalities are in use, either the monopolar or desiccation method, or the bipolar or electrocoagulation, in both these methods the great heat which causes the destruction is created after the electrode has been brought in contact with the tissue. Desiccation is the most ideal method for the destruction of all skin blemishes of a small or moderate size, such as moles, warts, pedunculated nevi or any other benign skin tumor. As a rule, one or two applications are sufficient, the procedure is very rapid and not painful enough to even require a local anæsthetic. The resulting scar is cosmetically as good or even better than produced in any other way.

Electrocoagulation is preferable for the destruction of larger tumors, as its effect is more intensive and penetrating, here a local or even a general anæsthetic is recommended. To my mind, this is the best method for the destruction of a basal cell epithelioma, which I usually follow up with an intensive X-ray application, more as an extra precaution than in the belief that it is really necessary. Since using diathermy, I have discarded the application of electrocautery or electrolysis, although both these methods give very good results, but they are not as flexible and quick in their action as the former. Of late, I have been experimenting with diathermy in the treatment of hypertrichosis. This most disfiguring condition seems to be the greatest tragedy in a woman's existence, and a safe and reliable method for its cure will be a great boon. Beauty parlors and unscrupulous doctors have pried on the gullibility of these unfortunate sufferers, because the legitimate profession has rather been lax in helping them. Of late, the X-ray has been exploited for this purpose, but should be

strongly condemned, as in most instances the sequelæ are disastrous and by far worse than the original trouble. Electrolysis is safe, but very slow, painful, and followed by a large percentage of recurrences. When employing the endothermy, I use the same technique as with electrolysis, but have found that it takes much less time to destroy the hair, that the percentage of recurrences is much smaller, and that it is less painful.

Carbon dioxide snow, introduced in dermatological practise about twenty years ago, has to my mind undeservedly been relegated to a place of minor importance. I still use it quite often for the removal of various types of nevi, which are broadly attached to the skin, especially in vascular nevi of a hypertrophic type. Carbon dioxide is also an excellent remedy for the destruction of infiltrated patches in lupus erythematosus.

The quartz mercury lamp, either as the Alpine Sun Light or the Kromeyer Lamp, has become quite popular with dermatologists in the last decade or so. I feel that its usefulness in dermatology is exaggerated and that it has a broader field in general medicine, due to its tonic effect on the general system, which mainly accounts for its beneficial effect in tuberculous skin lesions. I have obtained good results from its use in stimulating indolent skin ulcers of various types. As to its usefulness in scalp conditions, for which the Alpine Lamp was especially highly recommended, my personal experience leads me rather to a conservative statement. In *Seborrhoea capitis*, it helps as an adjuvant to drug treatment, the same holds good in cases of alopecia prematura, in alopecia areata, good results may be accomplished, but in frank baldness it is absolutely worthless. As to its effectiveness in eczema, psoriasis, acne vulgaris and other dermatoses, where the X-ray is applicable, I can only give a negative opinion, as I prefer using the X-ray in these cases, because of its greater reliability.

PSYCHIATRIC PROBLEMS IN THE CARE AND MANAGEMENT OF DELINQUENT CHILDREN IN N Y STATE

By V C BRANHAM, M D, Psychiatrist,

(State Commission for Mental Defectives)

WITH the creation of the Children's Court as a special branch of the judiciary throughout New York State by Act of Legislature of 1922, a prominence was given to the study and treatment of juvenile delinquency which it had not hitherto enjoyed. Many of the justices called upon to sit in judgment upon these children met more baffling problems than

had come to their attention in other courts. Out of this situation has arisen the need for a greater knowledge of the various institutions other than prisons. Consequently, an analysis of the facilities which these several institutions have to offer the courts has become necessary for the proper final disposition of the wayward child with whom probationary care, placement and other extramural adjustments have been failures.

The writer in offering this paper has had in

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For list of officers of County Medical Societies, see this JOURNAL, March 15, advertising page XXIII

REPORTING THE ANNUAL MEETING

It has been the custom of the Publication Committee to publish the complete proceedings of the Annual Meeting of the Medical Society of the State of New York in the next issue of the Journal following the meeting, but since the Journal has been made a semi-monthly, the time is too short for the adequate preparation and editing of some thirty pages of minutes. However, this issue contains general accounts of the principal features of the four-day meeting, and a report of the year's progress.

These descriptions are more than statistics

and consecutive diaries. They are designed as word pictures of the outstanding events and actions, and are intended to convey to the members, throughout the State, the vivid impressions of the medical reporter.

To arrange a four-day meeting for over a thousand doctors is an immense task which was well performed by the President and his corps of officers and committees.

The meeting was practical and altruistic, harmonious and thoughtful, progressive and conservative, with a due regard for the ancient landmarks and ideals of the profession.

tion of the State institutions and the largest organizations of the Catholic, Jewish and non-sectarian faiths. These estimates are approximate, of course, but are considered to represent fairly accurately the situation. That the actual population is not up to the capacity of the institutions seems to be due to the increasing role probationary methods play in keeping the delinquent child in the community.

The State institutions have been colored largely by the personality of the director at the head of them. His appointment has been determined by factors diverse in nature and the methods employed by such appointees are necessarily wide. This has tended to result perhaps in the failure to see in the psychiatric department anything more than a mere testing apparatus. As a consequence, there is inability to utilize such resources in offering practical help to inmates with serious behavior problems or arrive at a better classification of the inmates with a view of securing in them a more adequate response to their environment. The outcome has frequently been a stressing of the repressive and disciplinary side of the management to an undue extent. Diversities in points of view are unavoidable and they even have their value, but the net result is often confusion as to the task to be accomplished. One of these three institutions has a psychiatrist, another depends upon the school director to act as psychologist, and the third has neither psychologist or a resident psychiatrist.

The situation in the private institutions, of course, is somewhat different. These institutions fall broadly into the religious and non-religious organizations. The ideal of the former group, naturally, is to provide a home for wayward children in which the spiritual element is stressed. This is important, but not conclusive. Very few of these have a psychologist or psychiatrist, but many of them are located in metropolitan districts, which afford clinical facilities in this respect. The main difficulty with this arrangement is that the director of such an institution does not possess the viewpoint which will cause him to make full use of these facilities. Even testing of intelligence is not resorted to except as a means for the convenient disposition of a low grade defective. There are one or two notable exceptions to this, especially in the Jewish institutions.

Some of the private institutions appear to have secured a better grasp of the possibilities of vocational, industrial and recreational activities. The poor use of psychologists and psychiatrists is also more widespread. In many instances this service, however, is secured

through a consulting staff, and the impetus for developing such work has to arise for the most part outside the institution. But here again there are exceptions, and at least one institution has brought its departments up to modern requirements.

The foregoing remarks are not made in a spirit of criticism, of course, for it is recognized that the belief in the mental hygiene approach to behavior problems is a comparatively new one. This movement meets very much the same obstacles that were encountered by the crusades against T. B. and cancer. The institutions as a whole have been no more backward in accepting modern methods than has the community at large. The discussion has been made constructively with the viewpoint that psychiatric service in institutions caring for the maladapted child has much to offer. Such a service would secure better adaptation of the individual to his new institutional environment by correctly classifying him both as to his level of intelligence and mechanical aptitude or other abilities that best place him in the industrial unit of the organization. In this manner the vocational aspect of the treatment of delinquent children would assume ever-increasing importance. Such a service would study the child as an individual rather than en masse, with the desire to understand the fundamental causes back of his behavior. In its practical application it would secure better methods of discipline and care than a standard which metes out its punishment according to the degree of infraction of the rule. A study of the prison population brings out clearly the fact that a large proportion of inmates are subject to emotional instability and mild trends. Few of these are definitely insane in the current acceptance of the term. Likewise, the delinquent child shows the same maladaptations, and his conduct and his treatment should be governed accordingly. The prognosis of the child is more definitely predicated by this method, which has its practical application in the matter of consideration of parole. Finally, the child no longer becomes a cog in a machine. He is a human being with divergent physical, emotional, instinctive, and spiritual aspects which give promise of readjustment under a regime that stresses the individual rather than the mass. All institutions, of course, cannot be maintained by the State, but it is possible to secure for those concerned in the treatment of the delinquent child suitable State supervision and the physical, social and psychiatric care that is to be found as a regular procedure in the State hospitals and institutions for the care of the epileptic and feeble-minded.

2 The encouragement of writing for the local press by gifted physicians, who write over their own signatures as representatives of the medical societies

3 Participation in the activities of boards of health, child-welfare societies, and school boards, and other civic organizations

4 The promotion of the practice of periodic examinations of apparently healthy persons

While these four activities have had a gradual growth, they have been formally recognized only during the last year or two

An activity of first-class importance instituted during the past year is that of Graduate Edu-

cation, in which lecture courses and demonstrations are brought to doctors in their own counties. These courses have shown that while physicians are willing to assume the civic responsibilities that belong to the medical profession, they also wish to give the people the advantage of the newer scientific discoveries. These courses have also been great factors in inspiring physicians with a pride in their profession and with a sense of their civic responsibilities in medical affairs. Activity in one line of endeavor stimulates interest in other lines. Graduate education is the key which has opened up allied fields of work for county medical societies and individual doctors

HEALTH DEPARTMENT OF NEW YORK CITY

The Commissioner of Health of the City of New York, like a high ranking Medical Officer of the Army, does little medical or surgical work, but his time is occupied with administrative duties. He is the official head of public activities which have a bearing on health and for which no other agency is provided. It has been the fashion of public health writers to criticize the assumption of control over nuisances by a health department when some other branch of government could properly assume it. But some of these conditions come under the direct control of the Commissioner of Health of New York City because their health relations supply the best basis for action.

The most evident nuisance with which the Department of Health has dealt recently is that of smoke. The exact extent to which smoke is detrimental to health may not be susceptible to demonstration, but sentiment of the people and of the medical profession supports the Commissioner of Health in his efforts to eliminate the nuisance. Physicians see the discomforting effect of smoke on sick people, and they believe that the soot and tar and sulphuric acid in the murky air are important factors in producing respiratory diseases. The doctors of New York City are deeply interested in the relation of smoke to their practice of medicine.

Transportation problems would not ordinarily seem to come under the jurisdiction of the Department of Health, but the physical discomfort and danger of infection on crowded cars make human travel a first-class health problem. The solution seems to be to rearrange the hours of

opening and closing of offices and theatres. The administrative problem before the Commissioner of Health is to arrange a time schedule so that the half-hour of maximum travel, morning and night, shall be spread over an hour and a half to the great relief of the public as well as of the transportation companies. Physicians consider that transportation problems of the city have a great effect on their practice of medicine.

A third problem before the Department of Health is that of the purity of milk supplies and of fraud in connection with their adulteration. The detection of graft in the distribution of milk would seem to belong to the Departments of Police and Law, but their actions are based on public health to a greater extent than on fraud and crime. The Commissioner of Health therefore must perform the duties of a detective and a lawyer as well as those of a physician and chemist and milk inspector. It is also self-evident that the physicians are deeply interested in the purity of milk supplies.

Smoke transportation and milk frauds are largely emergency health problems for which adequate machinery is not provided. It is gratifying that the presidents of the five county medical societies of Greater New York have accepted the invitation of Commissioner Louis I. Harris to advise them regarding these and other public health problems. It is reassuring to the people of New York City that the daily papers have given publicity to a recent conference of the presidents of the Medical Societies with the Commissioner

LOOKING BACKWARD—THE JOURNAL TWENTY YEARS AGO

One who reads the JOURNAL and the records of the Medical Society of the State of New York, made twenty years ago, will find that the actions of the present day leaders were anticipated long ago and that the principles governing medical societies and public health were then formulated in their modern form.

This JOURNAL for March, 1906, contains a two-column letter from Dr. E. Eliot Harris, the present live and active Speaker of the House of Delegates. Dr. Harris argues against the recognition of osteopaths. If the word chiropractors was substituted, the letter would be entirely modern. We read

IDEALS AND ACTUALITIES OF THE ANNUAL MEETING

The Annual Meeting of the Medical Society of the State of New York, like all other meetings of the kind, passes through three stages of existence. The first is the meeting that is planned, the second is the meeting that actually takes place, and the third is that which the doctors remember. These three phases may be called ideals, achievements, and impressions.

The ideals of the 1926 meeting were born at the close of that of 1925 in the minds of seers and prophets who compose the staffs of officers and committees of the State Society. Gradually the visions of these inspired men assumed form and substance as they came in contact with the members throughout the State, until at last the program was evolved in every detail.

The amount of time and thought that is required to make a program is surprising to the uninitiated. Consider these figures:

Number of participants in the Scientific program	135
Number of lecturers and demonstrators in the Syphilis Exhibit	50
Officers and Committeemen	25
Delegates	150

Total participants on the formal program 360

It takes imagination and vision to coordinate the activities of over three hundred participants in a program and to visualize each section and

department at work, not only as a unit but as a component part of a complete meeting.

The acid test of the practicality of the ideals of the program makers was the four day meeting, the outlines of which are described on page 335 of this Journal. A Methodist Bishop once said that a good prayer meeting was one in which *you* took part. It is no wonder that the meeting of the State Medical Society was a "good" one, when one third of those registered took an active part in the formal programs.

The meeting now exists as vivid impressions in the memories of those who were fortunate enough to attend it, and as pages of history and records and papers in this and other Medical Journals. These impressions are as varied as those of the five blind men who first examined an elephant by means of the sense of touch. Some remember the sociability and the conversations with their fellow-workers in the corridors and dining rooms, some recall the discussions in the scientific sessions, some carry away vivid impressions of medical politics, some will study the subject of syphilis with renewed interest because of the impression of the exhibit, and some will go home renewed in youth and vigor because of the stimulation of the high lights of Broadway.

The ideals of the Medical leaders are well realized in the actualities of the meeting and in the favorable impressions carried away by those in attendance.

PROGRESS OF THE YEAR

The officers and committee of the Medical Society of the State of New York have given detailed accounts of their stewardships for their year of responsibility. It is well to take a birds-eye view of the collective attitude of the members of the Society toward the activities of the State organization.

The annual dues of the Society were doubled at the Annual Meeting of 1924, and were made ten dollars on the assurance of the leaders that more funds were needed for the activities that were demanded by medical progress. The attitude of the members was that the Society should enlarge its field of work, and that they were willing to bear the increased expense, provided the results justified the cost.

The four major activities which have absorbed the funds of the Society for many years have been continued and enlarged during the past year. These four activities are 1, the routine conduct of the central office, 2, the publication of the Journal, 3, the preparation of the Annual Directory, and, 4, provision for medical defense. These activities are concerned chiefly with doctors as individuals, and they differ from the corresponding activities of twenty years ago chiefly in their

greater extent. Provisions for the office of President Elect and for a permanent Board of Trustees will insure a continuity of policies and plans which has been lacking when the whole administration changed every year.

The great development of the activities of the State Medical Society in recent years has long been along civic lines. Physicians have always aspired to assume the leadership in all civic matters in which health is involved, but if an individual presumed to speak for the medical profession, his colleagues and the public questioned his authority and his motive. The past year has seen the quiet development of medical sentiment that the medical societies of the several counties and of the State should speak through their representatives, and should give qualified physicians the authority to speak and write and act in the name of their fellows.

The results of the assumption of civic duties by medical societies are far-reaching, and four may be emphasized.

1. A spirit of cooperation with the lay health organizations as outlined by Mr. Homer Folks in his address at the Annual Banquet (see page 339).



MEDICAL PROGRESS



The Causes and Control of Cancer—In an article in the *Medical Journal and Record* of March 17, 1926 (cxxxii, 6), James Young says he has for a number of years been urging that cancer is a parasitic disease and that in the transformation of a normal into a cancerous cell there are concerned (a) the factor that prepares the cell for the action of the parasite, and (b) the parasite, and only when these two factors are conjoined is cancer possible. After discussing the characteristics of the parasite, he emphasizes the importance of focusing attention not only on the local causes but on the possible and even probable operation of some generalized agencies which, in an increasing degree, are conspiring to make the peoples of civilized communities more liable than their predecessors to suffer from the damaging effects of tissue irritants. All the evidence indicates clearly that the absence of alimentary cancer in the primitive races must be due to alimentary habits that do not excite local irritation of the mucous lining of the digestive tract and that, *per contra*, the large incidence of alimentary cancer in civilized communities must be due to alimentary conditions that provoke irritation. In the ultimate the most important of all classes of cancer can be traced to considerations of diet. It cannot be said that such and such a food is especially responsible for cancer, but it can be said that any food irritant whatsoever is suspect, and it can be taught that by the practice of the well-recognized principles of a simple dietary much can be done to avoid the most frequent form of human cancer. To have the greatest possible effect the observance of enlightened hygienic rules must commence in infancy, for, as Sir Arbuthnot Lane and others have shown, bad alimentary habits started in early years may lead to permanent mechanical damage of the bowel, associated with bands and kinks and with chronic intestinal stasis and irritation, that in later years not only establish a condition predisposing to cancer but determine the sites of the neoplasms.

Parasitic Origin of Malignant Disease—Blumenthal, of the Berlin University Cancer Institute, in an article in the *Deutscher medizinische Wochenschrift*, March 5, 1926, reviews the work of himself and colleagues in this direction and also that of Gye and Barnard. The author admits that the present day pathologist is hostile to any parasitic theory of malignancy, so that certain objections must first be met, one of which relates to the nature of metastases. If cancer were a parasitic disease the metastases would have to consist

largely of proliferated microorganisms, as in the case of all true infectious metastases. Instead, they consist of proliferated cancer cells and of nothing else. In rare cases in which some microorganism can be shown to have caused the primary growth, this formation is not found in the metastasis. In replying to this objection Blumenthal assumes that there is a cancerogenic virus which has been responsible for the initial growth and that this virus may also cause the metastases, basing the conclusion largely on the statement of Carrel that *in vitro* the virus of fowl sarcoma changes the blood macrophages into malignant cells. This find also appears to dispose of the belief that fowl sarcoma is not a true tumor but only an infectious granuloma. Again, E. Smith, the discoverer of the bacillary cause of plant cancer, has gone over the work of Gye and certifies that the virus cultivated by the latter is of the same nature as that of fowl sarcoma. What now is the relationship of Blumenthal's living virus to the other forms mentioned? It is not necessary that it shall belong to the same group. Carrel has shown that tar cancer is not due to a living virus but a physicochemical one. Here we have two separate etiological factors which may have to cooperate before a cancer can originate. The living virus may require the other to activate it. The author thinks it best to limit his claim to this, that he can cultivate a bacillus from human cancer, cultures of which are able to cause animal cancer.

Radio-Diathermy in the Treatment of Inoperable Malignant Disease of the Upper Air and Food Passages.—Sir William Milligan states that when, owing to the situation, size, and extent of a malignant growth, surgical procedures are contraindicated, great relief, and in a certain proportion of cases apparent cure, may be effected by the employment of surgical diathermy, or by the use of radium or by a combination of these two methods—in other words, by radio-diathermy (*British Medical Journal*, February 27, 1926, 1, 3400). Diathermy, or endothermy, is contraindicated in cases of large adherent growths, growths in the intestinal tract, and when there is marked cachexia. Small and accessible growths are destroyed by this method, large growth only as the result of repeated application. In many cases it is possible, by means of block dissection, to remove all infected glands, and by subsequent irradiation to secure the sealing up of lymphatic tributaries in the dangerous zone with the result that what was surgically an inoperable growth becomes an operable possibility. The most brilliant and lasting results are to be

"Sir The attention of the medical profession in this State is called to a bill introduced in the Legislature by Senator Hinman, entitled "An Act Regulating the Practice of Osteopathy in the State of New York"

"Osteopathy, as defined in the bill, means "That science or system of healing which treats diseases of the human body by Manual Therapeutics for the stimulation of the remedial forces within the body itself, for the correction of misplaced tissue, and the removal of obstructions or interferences with the fluids of the body, all without the internal administration of drugs or medicines"

"Osteopathy means manual or hand therapeutics, and is a single agent used in the treatment of disease, as such, it has no greater claim to be separated from the general practice of medicine than electricity, or electropathy, bathing or hydrotherapy, massage or kinesiopathy, X-ray or radiopathy, and mental science or psychopathy, and is not entitled to a special examining board. The eye, ear, nose, throat, electro-therapeutic, psychopathic and other specialists do not ask exemption from the examination in the general science of medicine demanded by the Regents of the University of the State of New York of all candidates who apply for a license to practice medicine, or any branch of medicine, and they do not ask for an examining board in their specialty. If the so-called Osteopaths desire to establish a special branch of medicine, then they, too, should possess at least that average of the knowledge of preventive medicine, which is needed to properly control the spread of contagious and infectious diseases, and is included in the general science of medicine demanded by the present law which governs the granting of a license to practice medicine in this State, and they should not try to escape, under the said Section 6, the preliminary and final examinations for a license to treat the diseases of the human body by securing the enactment of the so-called Osteopathic Bill, which permits certain so-called practitioners in this State to receive a license to treat the diseases of the human body, without passing an examination,

and without presenting evidence of the possession of any scientific knowledge of the etiology, diagnosis, and properly quarantining of contagious and infectious diseases, and the methods of securing immunity from such diseases, which produce a terrible mortality throughout the world."

"The public has so long suffered from poorly educated physicians that every State in the Union has enacted laws, raising the educational qualifications of the candidates to be examined for a license to practice medicine."

"The medical laws of the State of New York were enacted to protect the people of the State from charlatans, quacks and pretenders of all sorts. The four years spent in the study of medicine prepares the mind and molds the character along the lines of truth and science and away from commercialism in medicine. A reaction from commercialism in medicine, and the tendency of modern times to raise rather than lower the educational standard of professional men were factors in causing the Legislature to enact the laws which prevent any person, not presenting the intellectual and moral qualifications required by the law, from practicing medicine "or treating disease of the human body" in this State. The public is protected by discouraging commercialism in medicine and is benefited by fostering the science of medicine, and not the least of the duties of physicians is the guarding of individual and public health along the lines of sanitation and preventive medicine"

"And it would be more reasonable for the Legislature to separate the special branches of criminal, corporation and real estate law from the general practice of law and establish for each of them a special examining board, so as to make it easier for the candidates for admission to the Bar who desired to practice as specialists, than it would be for the Legislature to select one special therapeutic agent used in the treatment of disease and separate it from the general practice of medicine as a panacea for all diseases at the request of those enthusiasts who are now asking for a special osteopathic examining board"

to the manner of action of the so-called alkaline diuretics which are given *ad libitum* in a host of conditions. The fact is lost sight of that they do not act by a true stimulation of the kidneys, but rather induce an increase in urine output because the system cannot tolerate an excess of these salts, since it must maintain a normal tonicity of its fluids at 0.9 per cent. To give them without plenty of water to wash them out is evil, for if the potash cannot escape, the body retains water to keep the salt diluted to its normal tonicity, the heart is depressed, and the patient becomes dropsical. Again the question arises as to whether direct diuretics should be continuously given or whether the kidneys should have periods of rest. That Nature means them to rest is manifest. In regard to other diuretics, such as digitalis, there is too little appreciation of the fact that any diuretic effect depends upon three factors, namely, whether the body is provided with enough water to be able to part with it, whether the oliguria depends upon the presence of a feeble heart which if improved will increase renal pressure, and whether the ability of the kidneys to eliminate water is the particular renal function impaired by disease. If this function is impaired the ordering of large amounts of water cannot be other than hurtful. As to the use of diuretics in the presence of acute nephritis, we are even more frequently in error. If one keeps in mind the pathology of the acutely inflamed kidney, one will not expect such a kidney to function either with or without the spur of diuretics. An estimation of the chlorides in the urine may be taken as a fair gauge of the ability of the kidney to eliminate salts. It is still easier to use the Mosenthal plan of recording specific gravity every two hours in the daytime, being careful to note the intake, which should be standardized and measured as well as the output. It must also be borne in mind in the consideration of diuretics that secreting epithelium, which is still capable of acting, bears in addition to its already heavy burden of urinary solids in fever the further burden of drugs.

Intradermal Salt Solution Test in Cardiac Disease in Children.—In 1923, W. B. McClure and C. A. Aldrich reported that when 0.2 c.c. of an 0.8 per cent aqueous solution of sodium chloride was injected intradermally in children, the resulting elevation disappeared or became impalpable much sooner in edematous patients than in certain control patients without edema. In a later paper they pointed out that the decreased disappearance time found in remotely separated regions of the body in the same subject could be explained on the assumption that a general intoxication so altered the tissues as to increase their avidity for water. Harry C. Olmstead (*Archives of Internal Medicine*, February 15, 1926, vol. 2) describes his experience with

this test in 47 children with rheumatic heart disease, or allied conditions. It was found that the disappearance time of intradermally injected salt solution was normal (above fifty minutes) in well compensated nontoxic cardiac disease, acute rheumatic fever, and chorea. In cardiac decompensation with edema, shortening of the disappearance time was limited to edematous and pre-edematous regions and was noted earliest in the dependent parts of the body. Decrease of disappearance time did not precede other clinical signs of impending decompensation with sufficient constancy to make the test of much value in predicting a break in decompensation. In certain severe cases of cardiac disease without decompensation there was a marked and nearly equal decrease in the disappearance time in arm and leg. The intradermal salt solution test was of value in this generalized or toxic group as indicating an unfavorable prognosis. The disappearance time picture characteristic of the toxic group was altered in the direction of that characteristic of the decompensation group, if cardiac decompensation developed. In two patients tested after death, the disappearance time in the edematous parts was practically as short as during life. This demonstrates that under these conditions circulation of the blood is not necessary in the phenomenon of disappearance of intradermally injected salt solution.

Vagus Heart.—Frey takes up a recent theory which may be destined to modify greatly or to do away altogether with the conception of vagotonia, which is in many respects unsatisfactory. The term "vagus heart" means for many internists the heart of vagotonia, yet in some of the most exquisite vagotonic diseases the heart shows little or no participation. On the other hand electrical stimulation of the vagus causes a wealth of symptoms which involve most of the organism and its functions and yet bear little resemblance to the clinical vagotonia of authors. For example, it causes calcium retention or at least a calcium increase in all of the tissues, while the state of the heart resembles that of muscarine and quinine poisoning. If the entire vegetative nervous system is stimulated the general result makes it very difficult to uphold the old doctrine of vago- and sympathicotonia. The author, basing his views on an analysis of the large amount of recent research in all countries, advances a different hypothesis. There is in certain individuals a special vagus sensitiveness, which belongs to what has been called the parasympathetic constitution. There is no primary participation of the vagus which is involved only secondarily. The causal elements are largely peripheral. This vagus sensitiveness should bear the name of vagus heart. The author seeks to trace the presence of this element in bradycardia, extrasystoles, paroxysmal tachycardia,

obtained in electrocoagulation of malignant growths and areas of ulceration in the upper pharyngeal cavity—the palate, tonsils, base of the tongue, and floor of the mouth. The infected glands are first removed after ligation of the external carotid artery and this is followed ten days to a fortnight later by ligation of the other carotid artery and coagulation of the primary seat of the disease. Irradiation may be effected either by burying radium needles along the route of the lymphatic stream leading from the focus of the disease, by means of applicators applied around the angle of the jaw, or by a combination of both methods. In malignant growths of the esophagus, an electrode recently designed by Wright of Bristol renders the application of diathermy easier and safer than any other, as it coagulates upward, and therefore under the observation of the operator. If it is desired to radiate with radium, an endless thread to which one, two, or three screened tubes containing radium element are attached, is swallowed and the tubes are pulled into position in vertical series. The preliminary coagulation and consequent opening up of the stricture will be found to permit of this being done comparatively easily. In all cases the performance of a preliminary gastrostomy is advisable. Diathermic coagulation, with or without the subsequent employment of radium, affords a chance, although a very slight one, of eradicating malignant disease of the esophagus. Diathermy is followed by little shock, is a practically bloodless operation, prevents dissemination of cancer cells, affords relief from obstruction and dyspnea, arrests the tendency to spontaneous hemorrhage, gives soft and pliable scar tissue, and is less frequently followed by bronchopneumonia than are cutting operations. It has the disadvantage that it destroys a certain area of healthy tissue around the growth, it may cause softening and ulceration of blood vessels, with resulting secondary hemorrhage, and when the skin is involved keloid cicatrices may develop.

Fifteen Cases of Operable Carcinoma of the Breast Treated by Radium and X-Rays—While not maintaining that radiation should be preferred to operation in operable cases of breast cancer, J. H. Douglas Webster, J. P. Thierens, and F. G. Nicholas, none the less believe that this modality which has sometimes led to the complete disappearance of inoperable growths, should give good results in operable cases (*Lancet*, February 27, 1926, ccx, 5348). They report fifteen operable cases—8 treated by x-rays, 2 by the combined use of x-rays and radium, and 5 by radium—in 11 of which the patients are well, with little or no sign of disease. There were two deaths, one due to an intercurrent disease, and one to the malignant disease over two years after treatment had been discontinued, in one case there was abdominal metastasis. Com-

paring the radium with the deep x-ray cases, the writers found no notable difference so far as the results were concerned. All the radium cases did well locally during the time they were under observation. In each case there were supplementary medium-voltage x-ray applications to the epigastrium, lateral chest wall and axilla, supraclavicular triangles, opposite axilla and breast. Every patient in the series either refused operation, or else age, chronic bronchitis, heart disease, or glycosuria made operation inadvisable. These results suggest that cancer patients should be more freely offered the alternative of radiation treatment than they are at present, at least they should not be told that there is absolutely no alternative to operation.

Erythema Arthriticum Epidemicum—Edwin H. Place (*Boston Medical and Surgical Journal*, February 18, 1926, ccxiv, 7) describes an epidemic of an apparently new type of disease which occurred in Haverhill, Mass., a city of about 55,000 population, in January, 1926. The clinical picture in this disease is dominated by (1) the acute onset with toxic symptoms, as chill, vomiting, malaise, and headache, (2) the eruption, involving especially the extremities, of a blotchy somewhat morbilliform character with a tendency to petechiæ, and (3) acute multiple arthritis of varying but often severe degree. The disease appeared to be readily distinguishable from the ordinary epidemic diseases. An organism was isolated from the blood in ten out of twelve blood cultures. One negative blood culture was from a patient on the tenth day of the disease, the other was badly contaminated with staphylococcus. The organism was also cultivated from two joint fluids, one being from a patient whose blood had yielded the organism at two different times. This organism is a Gram negative, rod-shaped microorganism, growing in fluid media as long filamentous threads which often show oval or spherical enlargements, occurring at any point on the filament, in these fluid media, the organism tends to grow in masses of interwoven threads. The best media found thus far are ascitic fluid broth and blood broth. The disease seems to come in the group of undulant fevers and most closely simulates Malta fever. The association with the milk supply, the arthritis, eruption, toxic symptoms and the irregular fever are similar. The milk supply of those affected was either directly from one dairy or indirectly through four stores receiving the same supply from the dairy, except in two cases. The epidemic was confined to a small area along the river. The patients were chiefly Lithuanians.

Certain Therapeutic Considerations in Connection with Renal Disease—Hobart Amory Hare (*Therapeutic Gazette*, February 15, 1926) calls attention to a misconception that exists as

LEGAL

By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

INDIVIDUALISM—ITS MERITS AND ITS DANGERS

English history is the record of the struggles for individual liberty. The story of the Great Charter wrested by the Barons from King John at Runnymede in 1215, the contests with the Stuarts, the wars of Oliver Cromwell, and his parliamentary army, furnished an inspiration and a precedent to the contemporaries of George Washington who offered their lives in the cause of liberty.

The opportunity for the individual to lead his own life, free from arbitrary trammels, to think, to act and to engage in the pursuit of happiness in his own way, is the ideal, the excuse and the underlying basis of our democracy. Individualism—the right of each individual to think his own thoughts and to be the captain of his own destiny, furnishes the key to an understanding of the genius of our American principles and explains the development within the short space of a hundred and fifty years, of the mightiest nation known to human annals.

Liberty, however, does not mean the right of each man to live in disregard of the rights of his fellowmen. Liberty is reciprocal, it involves duty as well as right. Liberty, even under a free constitution, presupposes the duty of the citizen to exercise so much liberty only as is consistent with the liberty of others. Thus our government, which guarantees our liberty in a sense, curtails it. Liberty is not license.

As civilization grows more complex, the necessity rises for each individual to surrender a part of the rights which he might enjoy in a state of nature increases. This is the price which he must pay for the protection which the government affords him. Thus, while the citizen has the right to except his government to protect him from invasion of a foreign foe, he must, in order to secure this right, be ready to need be to become a soldier and to lay down his life for the government which protects him. For the privilege of having his disputes adjusted by a court, for having his streets policed, his house protected from fire, his food inspected through proper sanitary measures, he must pay taxes. Within our own time we have watched the obligations of the citizen multiply and increase. Every year at the expense oftentimes of personal convenience each of us is required to prepare a detailed and voluminous statement of our income, both for

the national government and for the state and to take from our income, for the support of these governments, a portion of that which we have earned. For the privilege of good roads and the right to drive our automobiles upon them each year we are required to apply for and obtain an automobile license, and to pay the fee which the government exacts. By thinking men these things are now cheerfully done because they realize their purpose and their necessity.

There is no field of endeavor in which individualism is more necessary than in the medical profession. The doctor is an individualist. It is both well and necessary that this is so. Granted the proper professional training and knowledge, the physician should be free to exercise his best judgment and in his valiant struggle against disease and death to bring to bear unhampered all his skill, personal judgment, knowledge and experience which he can summon to the mighty combat in which daily he engages. No friend of the medical profession could bemoan this or wish to change it. And yet there are times when the individual physician, oppressed by the manifold duties and responsibilities which flow from the high calling which he follows, is prone to forget that the attainment of the great ends to which he has dedicated his life—the safeguarding and protection of the public health—can best be served by combined action rather than by working alone. It was the recognition of the necessity for cooperation which prompted the organization of the Medical Society of the State of New York in 1806. "The purposes of the Society," so reads the first article of its Constitution, "shall be to federate and bring into one compact organization the medical profession of the State of New York, to extend medical knowledge and advance medical science, to elevate the standard of medical education, to secure the enactment and enforcement of just medical laws, to promote friendly intercourse among physicians, to guard and foster the material interests of its members, and to protect them against imposition and to enlighten and direct public opinion in regard to the great problems of medicine."

"To secure the enactment and enforcement of just medical laws." "To enlighten and direct public opinion in regard to the great problems of medicine." Where is there a more

auricular flutter, conduction disturbance, acute cardiac failure, acute dilatation, etc. Especially characteristic of this conception of vagus heart are the disturbances of rhythm. Ordinary vagotonia may coexist but is not necessarily present. —*Klinische Wochenschrift*, February 12, 1926

The Tragedies of Tooth Extraction and of the Treatment of Root Abscesses—George Blumer (*Boston Medical and Surgical Journal*, February 11, 1926, cxciv, 6) calls attention to some of the types of infection which may follow the extraction or treatment of infected teeth. He cites two cases as examples of general sepsis following in the one case the extraction of an infected tooth and in the other the drainage of a root abscess. In two other cases the simultaneous extraction of a large number of teeth was followed by a nonfebrile process, evidently of an infectious nature. In one of these cases there were visual disturbances due to old and fresh retinal hemorrhages, thickened peripheral vessels with hypertension, slight heart hypertrophy and albuminuria. Extraction of infected teeth was followed directly by vomiting, weakness, jaundice, increasing diminution of the liver dulness, restlessness, muscular twitching, stupor, and death in a convulsion. In the other case, a few days after the removal of the upper set of teeth for pyorrhea, pain in the hip joints, anorexia, nausea, vomiting, dizziness, and slight dyspnea on exertion appeared. There was slight elevation of blood pressure, with the persistence of gastroenteric symptoms there was high nonprotein nitrogen and very low phthalein excretion. A diminution of urinary secretion followed with increasing lethargy and death. Autopsy revealed chronic infectious nephritis, extensive degenerative lesions in the liver and heart muscle, and latent carcinoma of the prostate. The different types of fatal lesion which may result from tooth infection may be grouped as follows: (1) Direct extension of the local inflammatory process with spreading inflammation, which may even invade the mediastinum, and death from toxemia, (2) metastasis to neighborhood tissues, such as occurs in cases of meningitis or thrombosis of the cerebral sinuses following tooth extraction, (3) general septicemia or septicopyemia, which may terminate in (a) acute septicemia with or without endocarditis, (b) chronic septicemia with degenerative processes in the internal organs, or (c) prolonged septicopyemia with the formation of abscesses. In patients whose general resistance is lowered by chronic disease, infected teeth should be removed under the most favorable circumstances and with the most careful technique.

The Treatment of Salpingitis—The differentiation between acute salpingitis and acute appendicitis often raises a problem very baffling to the surgeon. Thomas G. Stevens (*The Lancet*, January 23, 1926, ccx, 5343) states that on the whole there is more to be discovered by a pelvic examination in acute salpingitis than in appendicitis. One peculiar sign of great importance is the acute pain which is evoked in tubal inflammations by attempts to move the uterus. In doubtful cases an examination under an anesthetic should never be omitted, bilateral thickening of the tubes and of the structures around them, definitely excludes appendicitis. In salpingitis there is never the same necessity for immediate operation as there is in appendicitis. If an operation is done in the acute stage of a first attack the temptation to remove both tubes is very great. It has been shown, however, that it is not necessary to remove these pus dripping tubes. If they are freely split up and the pelvis drained, preferably with a large tube, through a small stab wound outside the rectus muscle, the results are very good. This is the treatment recommended if the abdomen is opened in a case in which it is doubtful whether the appendix or the tubes are at fault. Since it is not yet known whether tubes treated in this way will ever function normally, or whether cases thus treated can be regarded as cured, it is advisable that a first attack of acute gonorrheal salpingitis and peritonitis should be treated on expectant lines, and operation performed only if complete resolution does not occur. The expectant treatment to be adopted is chiefly concerned with the relief of pain and the promotion of the absorption of inflammatory exudates. Pain is best relieved by hot applications to the abdomen and hot vaginal douches of physiological saline solution. When pain has subsided counterirritation may be employed in the form of ichthyol tampons or vaginal suppositories, also combined with hot douches, 10 per cent ichthyol in glycerin for the former, or 10 per cent ichthyol in cacao butter for the latter, being the usual prescription. Every other night is sufficient for the ichthyol, as it may prove irritating. If an acute puerperal salpingitis of streptococcal origin becomes localized, with free pus in Douglas's pouch, it is best to evacuate it through an incision made transversely across the posterior fornix. Where no definite pelvic abscess can be found, and the temperature, pulse, wasting, and leucocytosis indicate pus formation, an abdominal operation must be done, drainage should always be employed whether pus is found in the peritoneum or not.

American interests abroad and at home, so the individual members of your profession and of your county societies in 1806 joined together in forming your Medical Society to "federate and bring into one compact organization the medical profession of the State of New York."

Individualism is vital to your welfare, it

should be fostered and encouraged, but individualism which refuses to unite and to co-operate in order to bring about the greatest good for the greatest number may become a danger and a menace to the accomplishment of the great aims for which you have so nobly dedicated your lives, your strength and your high courage

LACERATION OF HAND AND INFECTION OF HAND AND FOREARM

In this action the plaintiff was a retail distributor of milk, and one morning while engaged in the discharge of his duties he cut the palm of his hand upon a broken milk bottle. He called upon the defendant for treatment, who found that the plaintiff had sustained a severe cut upon the surface of the hand, and after cleansing the same inserted several stitches. At the time the plaintiff called upon defendant he had a soiled rag wrapped around the lacerated hand. The physician advised him to take extra precautions in keeping the wound and its bandages clean, and to return to the defendant's office on the following morning. The plaintiff failed to return upon the following morning, but came back to the defendant on the second day thereafter, at which time the plaintiff told the physician that he had put some liniment on his hand. The bandage at that time was found to be very dirty. The physician removed the bandage and cleansed the wound, redressing the same with a clean sterile bandage, and advised the patient not to do any work which would require the use of the injured hand, and to return to him during the day if necessary, if not, on the following morning. This was the last time that the defendant physician was visited by the plaintiff.

Instead of returning to the defendant the plaintiff went to an adjoining city and there consulted a physician, complaining at that time of great pain in his hand, and the same being extensively swollen. The physician in the adjoining city, upon removing the bandage, found that the wound and hand were infected. He thereupon removed the stitches and widely opened the original wound, permitting considerable pus to escape. This physician ordered the plaintiff into a hospital, and kept him in bed with his hand elevated, and wet dressings constantly applied for a period of about four days. The infection, instead of sub-

siding, had extended over the entire hand and into the arm, requiring the making of numerous free incisions to permit drainage. The infection continued to spread for a period of several weeks, during which time it was necessary to make further incisions for drainage purposes. The virulency of the infection also required the removal of the tendon from the little finger, but no other essential parts of the infected member were removed. The arm and hand continued to drain for a period of weeks, and in the healing process a large amount of scar tissue had formed on both the hand and forearm, causing a large percentage of loss of function of the hand.

In his action instituted against the physician who had first attended him, he charged this physician with neglect in the treatment of the lacerated hand, and claimed that the spread of the infection and the subsequent loss of use of the little finger and impairment of function of the hand and arm were due to the defendant's improper treatment.

The case was tried for two days before a court and jury, the plaintiff testifying in his own behalf and likewise introducing the testimony of a physician in his effort to establish that the defendant's treatment was improper and produced the result complained of. Testimony was likewise introduced on behalf of the defendant. The plaintiff being unable to establish that the treatment given by the defendant caused or probably caused the blood poisoning, or that the natural and probable consequences of any omission upon the part of the defendant caused or contributed to the spread of the infection and the blood poisoning resulting in the injuries complained of, the trial court, upon the defendant's motion at the close of all the evidence, dismissed the complaint, terminating the action in defendant's favor.

exalted aim? These purposes for which your great Society was formed should be ever before you as a pillar of fire to light the way to progress. No individual doctor or single group of doctors in any locality, however gifted, however unselfish or however lofty in its purpose, is strong enough to achieve these aims unaided. It was in recognition of this that your Society was organized "to federate and bring into one compact organization the medical profession of the State of New York."

Composed as it is of more than ten thousand members, it could not be possible for your Society or for any other society at all times to achieve absolute unanimity of opinion. Perhaps the difficulty of achieving unanimity increases in proportion to the enlightenment and to the self reliance of the group seeking to attain it. But in order to avoid frustration of its purpose, to prevent a complete dissipation of its energies and the defeat of its aims, it is necessary in this Society, as it is necessary in government, that the majority should rule. The privilege of every citizen to express his opinion at the ballot box does not carry with it the corollary right to disobey the laws which the Legislature by its majority has enacted. The essential of liberty is that the majority should have the privilege of expressing its opinion, and the opportunity, if possible, to persuade others to adopt its views. But once the minority has had a full and free exercise of advocacy and has failed in its persuasions, the majority must have the untrammelled opportunity to act. Any other way lies anarchy. Anarchy in government has its prototype of ineffectuality in private bodies.

Your Society is organized upon the representative theory of government. It is too large and extends over too wide a domain to permit direct action of the members upon every question that arises. Your House of Delegates is your legislature and your executive functions are distributed among your officers, your council and your standing committees. To act at all your Society must act through representatives. Your representatives cannot act effectually for you unless they are supported in their action. Theirs is the responsibility of action, yours is the responsibility of supporting them in that action. The representative principle runs through every section of your Constitution and your By-laws.

To a degree perhaps unprecedented in our history, the medical profession is assailed now from without—not only the medical profession but the whole body of scientific knowledge which the physician brings to bear against diseases threatening his individual patient and the public health. The folly and knavery of the cults menaces the welfare of our people to a degree that has not yet been fully appre-

ciated or exposed. The enlightenment of the public and its education in the dangers that inevitably flow from the pernicious propaganda of the quacks is the most serious duty of the medical profession—a duty more imperative even than that which was recognized and accepted by the organizers of your Society a hundred and twenty years ago, when the expressed duty "to enlighten and direct public opinion in regard to the great problems of medicine" was solemnly placed in your character, as one of the great purposes of your organization.

Thomas Jefferson was the President of the United States when your Society was incorporated. The country had emerged from its belief in witch-craft and though the cultists of the present day were then as yet undreamed of the necessity "to secure the enactment and enforcement of just medical laws" was recognized and embodied in your charter as one of the high duties of the medical profession. If the "enactment and enforcement of just medical laws" was necessary then it is ten times more necessary now! Since that purpose was proclaimed the nineteenth century has been written into history and a quarter of the twentieth has intervened with all of the marvelous and unprecedented advance in science and the knowledge of the causes and proper treatment of disease.

The brigands of the public health of our day who for their own selfish and dastard purposes of private profit flaunt the teachings of a century and a quarter must be met, opposed and put down. This can effectively be done only through concerted action. The weapon for combating these enemies of the public health lies within your own hands—your Medical Society, organized as it is "to federate and bring into one compact organization the medical profession of the State of New York." To federate means to "unite by compact," compact means "firmly united," organization means "the act of arranging in a systematic way for use or action." One of the purposes of your Society, therefore, is to bring together "in a firmly united body for use or action the medical profession of the State of New York," and thereby to "extend medical knowledge and advance medical science." How is it possible to do this unless you operate as "one compact organization"—not sixty compact organizations, but one! The value and importance of individualism is recognized in our American theory of local self-government. The townships, counties and the states have their several functions, and they are important, but when the United States of America declares war, no township, county or state is permitted to dissent or to obstruct. Just as our Federal Constitution was adopted in order to secure "a more perfect union" for the protection of

NEWS NOTES

BULLETIN NO 6

March 24, 1926

The hectic season of the legislative period is at hand. The Assembly has offered the Senate a resolution that they adjourn on April 16th. The Senate is holding the resolution, however, for a few days while it determines whether or not to amend it extending the period.

Our Trustee bill has been signed by the Governor.

The Loomis bill is with the Committee on Revision and it is hoped will appear on the desks in the Assembly Thursday or Friday, but will not come up for debate until Tuesday or Wednesday of next week. In the Senate it remains in the Public Health Committee. A group of advertising physicians, known as the American Association of Independent Physicians, whom we believe is headed by Leonard Landis, the man who conducts and advertises the House of Health in New York City—has been granted by Senator Karle an opportunity to oppose the Medical Practice Act at a hearing this Wednesday afternoon. We have invited a number of people who are thoroughly familiar with the manner in which the House of Health is conducted and the unethical practice the physicians engage in, to attend the hearing and give the Committee the benefit of their investigations.

LET EVERY COUNTY CHAIRMAN IMMEDIATELY WRITE TO HIS LEGISLATORS AND ADDRESS THEM AT THE CAPITOL ALBANY, URGING ON BEHALF OF HIS SOCIETY FAVORABLE CONSIDERATION OF THIS BILL. We

have been told by several legislators that they have had no communications from the physicians in their county. While you are writing ask the President, Secretary and other members of your Society to do the same. DON'T PROCRASTINATE, WRITE AT ONCE AND ASK THE OTHERS TO DO THE SAME.

The Esmond bill was reported out of Committee last week and laid aside. It will very likely be on today's calendar for second reading. Senator Wales has introduced Mr Esmond's bill in the Senate.

The Meegan bill defining the practice of medicine as limited to the dispensation of drugs and anesthetics, has been introduced in the Senate by Senator Gibbs.

Mr Hastings has introduced the bandagery bill in the Senate. This bill has not yet been reported out by the Assembly Committee on Public Health, and we hope it will not be.

No other bills have shown any activity during the past week, except Assembly Introductory No 1410, introduced by Mr Thomas relative to the powers and duties of local health boards, has advanced to third reading in the Assembly.

We are enclosing a copy of Assembly Introductory No 1526, the anti-vivisection bill mentioned in Bulletin No 5.

HENRY L. K. SHAW
ARTHUR W. BOOTH
CLARENCE F. GRAHAM

Committee on Legislation

Medical Society of the State of New York

BULLETIN NO 7

March 31, 1926

Our Medical Practice Act was on today's Assembly calendar, but owing to the light attendance of members of the Legislature, due to Holy Week, it has been put over until next Tuesday. Senator Karle, chairman of the Senate Committee on Public Health, will not report the Webb bill out of committee, but will pass it on to the Committee on Rules, which will take charge of all committee work after April 1st.

The Esmond chiropractic bill was on yesterday's calendar, but owing to light attendance, was put over until next Monday night.

Senate Introductory No 921—Karle—concurrent Assembly Introductory No 1267—

Lattin, relative to certificates and reports to be made by counties receiving State aid for public health work, has been passed by the Senate and advanced to third reading in the Assembly.

Senate Introductory No 981—Hewitt—concurrent Assembly Introductory No 1338—Hutchinson, relative to State contributions to counties in aid of public health measures, has passed both Houses and gone to the Governor for signature.

Following is a list of the bills introduced since our last Bulletin.

ASSEMBLY INTRODUCTORY NO 1697

Introduced by Mr Grossman, would amend sections 343-a and 343-b Public Health Law,

State Department of Health

VENEREAL DISEASES REPORTED IN 1925

Syphilis

In 1924 there were thirty-nine fewer new cases of syphilis reported than during the previous year, and it was then thought that it might be that the peak of incidence had been reached and the number of new cases would remain more or less constant for a few years and then decrease. However, the 1925 records show 2,069 more cases than in 1924, an increase of 18 per cent, the largest previous increase in any single year having been 11 per cent. Thus, it would seem that 1924 was not a turning point, but merely a resting point.

The increase in the number of new cases does not necessarily mean an increase in incidence. It may be due to an increased use of laboratories by physicians, an increased vigilance on the part of the profession or an increase in the number of infected persons seeking treatment voluntarily.

Gonorrhea

The number of new cases of gonorrhea reported by laboratories in 1925 was the largest since such statistics have been kept. The reporting of gonorrhea has shown a consistent growth for the past seven years, increasing from 2,447 in 1919 to 4,629 in 1925. The increase last year over the preceding year, nine and one-half per cent, was more than for any previous year.

Diphtheria in 1925

In 1925, 4,370 cases of diphtheria were reported, as compared with 5,883 in 1924. The case rate per hundred thousand population was 90, as compared with the previous lowest rate, 103, in 1908. The mortality rate per hundred thousand population was 69, as compared with the previous low point, 76, in 1924. The fatality rate 77 per 100 cases was higher than any year since 1918, but lower than in any of the years previous to 1919.

PRENATAL CONSULTATIONS IN 1925

During 1925 the Division of Maternity, Infancy and Child Hygiene conducted 208 prenatal consultations in 27 communities, with a total attendance of 1,057. Of these, 474 were new cases and 583 were revisits. An increasing number of physicians attended to consult about their patients. Two hundred and forty-six cases were referred by physicians, as against 91 during the previous year. The majority of cases came under observation during the third or fourth month of pregnancy rather than the seventh or eighth month, as in 1924.

TUBERCULOSIS CLINICS IN 1925

During 1925 the Tuberculosis Division conducted 130 clinics in 26 counties. There were 2,654 patients examined and 816 physicians referred patients. Two hundred and forty-one physicians visited the clinics and many of them assisted in the examination of their patients. When visiting the clinics the physicians have shown a keen interest in its demonstrative characteristics relative to the early diagnosis of diseases of the lungs, and a large number have availed themselves of the opportunity of receiving instructions from the experts conducting the clinics.

The following is a list of some of the non-tuberculous diseases diagnosed at the clinics

Bronchitis	12
Chronic bronchitis	30
Sub-acute bronchitis	6
Acute bronchitis	12
Asthmatic bronchitis	6
Bronchial asthma	46
Bronchiectasis	10
Pleurisy	4
Thickened pleura	9
Emphysema	2
Hydro-pneumothorax	1
Healed pulmonary abscess	1
Pulmonary abscess	2
Pyo-pneumothorax	1
Fibrositis	1
Empyema	1
Curvature of the spine	8
Sprengel's deformity	1
Endocarditis	17
Myocarditis	10
Mitral regurgitation	6
Chorea	1
Thyrototoxicosis	2
Hyperthyroidism	3
Adenomatous goitre	1
Cyst	1
Rickets	1
Pyorrhea	2
Chronically infected tonsils	11
Pharyngitis	2
Chronic valvular disease of the heart	8
Arterio-sclerosis	1
Arthritis deformans	1
Otitis media	1
Lymphatic leukemia	1
Marasmus	1
Umbilical hernia	1
Chronic rheumatoid arthritis	1

been referred to the Assembly Public Health Committee

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Assembly Introductory No 1700—the Miller

eye bill—has been introduced in the Senate within the last few days by Mr Truman.

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MEDICAL SOCIETY OF THE COUNTY OF QUEENS

The medical Society of the County of Queens held their stated meeting on February 23rd, 1926, President Denis E McMahon in the chair

Four physicians were elected to membership and an equal number received by transfer from other Societies

For the Legislative Committee, Dr T C Chalmers reported on various bills before the legislature and stated that the Medical Practice Act was introduced last Wednesday It is the Medical Practice Act of the State Society At the recent conference of the Legislative Committee, the State Board of Regents and the Special Committee of the State Society, being a body of about 25 men, modifications were adopted, most important of which was the substitution of annual instead of a single registration, but, it was Dr Chalmers' expectation that this would be without the payment of a fee and with the provision that failure to register will not invalidate the right to practice medicine Features of the bill, as now drawn, were explained in detail On motion, consideration of this matter was laid upon the table

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Introduced by Mr Rice, would amend the Education Law by providing that one-half the cost of education and surgical treatment of physically handicapped children shall be paid by the county and one-half by the State, and makes an advance appropriation of \$75,000 for the purpose.

ASSEMBLY INTRODUCTORY NO 1776

Introduced by Mr Kennedy, would amend section 310, Public Health Law, by providing a minor whose parent or guardian objects to vaccination of such minor, the compulsory provision therefor shall not apply. When the bill is printed a copy will be forwarded.

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styled medical institutions and "diploma mills", if graduates of any such low-standard institutions are employed by the State Public Health Service or any other branch of the State government, if graduates of such institutions and "diploma mills" are now practicing medicine in the State of New York, etc. Such committee to choose from its members a chairman, employ a secretary, counsel, stenographers and such other employees and assistants as may be necessary, and fix their compensation. Such committee shall have power to sit within and without the city of Albany, and within and without the State of New York, having authority to subpoena and compel attendance of witnesses, including the production of any book, paper, document or record pertaining to the subject of its investigation and shall have and possess generally all of the powers of a legislative committee.

Such committee shall report to the Legislature of 1927 the result of its findings, together with such remedial legislation as it may deem warranted in suggesting. It is also resolved (if the Assembly concur), that the actual and necessary expenses of the committee in carrying out the provisions of this resolution, not exceeding the sum of \$30,000, be paid from the legislative contingent fund.

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THE DAILY PRESS



MEDICAL PUBLICITY IN ENGLAND

The conservatism of the Medical Profession in England is illustrated by the attitude of the Medical Council, which licenses practitioners of medicine, toward medical publicity. This attitude is described in an item of London news printed in the *New York Sun* of April eighth, which says

"The Council is already under fire because of its ruling that neither a surgeon nor a physician may write a signed article for any newspaper or magazine for the purpose of instructing the general public. It is contended here (in America) that the public is entitled to such information on the subject of keeping well as is given through the newspapers to the American public. Such articles as now appear in the British press, by reason of their anonymity, lack the persuasive power of a signed, authoritative statement, it is held."

The occasion of the article in the *Sun* was the death of Dr F W Axham whose license had been revoked twelve years ago when, at the age of seventy-four, he had given an anesthetic for Sir Herbert Barker, an osteopath, or "Manipulative Surgeon." Barker had received the order of knighthood from the King because of what he had done in the World War, but in spite of the Royal support the medical men refused to recognize him. In describing the dispute between the medical men and Royalty the *Sun* says

"The Council had previously condemned osteopathy as a science and had promulgated a regulation which forbade any practising surgeon or physician to encourage its spread in any way under pain of forfeiting his license. This effectively prevented the spread of osteopathy, inasmuch as people feared to go to an osteopath knowing that if he should fail them, they might not find a medical man willing to receive them back to the true fold. The honor which the King conferred on Sir Herbert could be explained only as a rebuke to the medical council, and was accepted as such by many doctors and laymen."

"It is recognized in the medical world to-day that the council has got itself into an extremely awkward position. All his life it has been the bete noire of the King, who showed it his royal contempt on numerous occasions, not only by conferring knighthood on Barker but by patronizing the late Eugene Sandow, the 'strong man,' after another doctor had lost his license for accepting the position of 'resident physician' of Sandow's famous London 'sanitarium.'"

NURSING

The pastor, next to the physician, is the one best able to give a kindly judgment regarding nurses, for he is the welcomed comforter of the sick and of their anxious families. Dr S Parkes Cadman, Pastor of the Central Congregational Church of Brooklyn, N Y, discusses nurses in his Daily Counsel column of the *New York Herald-Tribune* of March 14th. The question was

"I am a registered nurse and wish to say that some nurses have become so puffed up by the artificial inflation of their educational system as arranged and executed by the regents in certain states that they have lost touch with the humanitarian side of their work."

"They feel that they are protected monopolists. They suffer from white collaritis. They are drawn away from the bedside. They shun fatigue and odors. Instead of combing the hair of patients, they tell them to get it bobbed."

"Will you say something to arouse the community to the necessity of teaching nurses self-denial and faithfulness in disagreeable tasks?"

Dr Cadman replied

"One would prefer to praise and honor the splendid service rendered by nurses rather than criticize them."

"Naturally, with the general tendency in the community to consider one's own comfort and to avoid excessive fatigue and long hours, nurses expect better and easier treatment today than they had hitherto received."

"When the workingman is striking for an eight-hour day and higher wages, the nurse can hardly be expected to remain content to toil from ten to fourteen hours a day for a modest salary."

"Society is beginning to feel as never before the value of the nurse. Because of this she is on the way to becoming a privileged person. It may be hoped that she will not abuse this privilege so long as we set her an example of self-sacrifice and moderation in our own life and practice."

"Few of us are yet in a position to criticize the nurse, for in our daily life we do not commonly measure up to the standard of service and sacrifice which she has attained."

"Such criticism as nurses need may best be given at their own conventions by their own honored leaders and personnel."

"Meanwhile let people who require the services of a trained nurse take care to treat her as a human being."

"She is not a cook, a housemaid but a skilled assistant to the great medical profession."

MEDICAL SOCIETY OF THE COUNTY OF ROCKLAND

At a meeting of the *Comitia Minora* held last month, it was unanimously voted to adopt for our Society the post-graduate education program sponsored by the Committees on Medical Education of the State Society and by the State Department of Health

There will be six lectures in obstetrics on the following subjects I Pre-Natal Care, II Management of Normal Labor, III Post-Partum Care, IV Pathology of Pregnancy, V Pathology of Pregnancy, continued, VI Pathology of Labor These lectures will be given by the following well known obstetricians

Harold C Bailey, M D, New York (Bellevue Hospital), George W Kosmak, M D, New York (Fifth Avenue Hospital), Ralph W Lobenstein, M D, New York, John O Polak, M D, Brooklyn (Long Island College Hosp), James K Quigley, M D, Rochester (Rochester General Hosp), Frederick W Rice, M D, New York (Bellevue Hospital)

This course of lectures will be given in the recreation hall of Summit Park Sanatorium at Summit Park at 3 30 P M on Wednesday afternoons beginning on April 7th

BRONX COUNTY MEDICAL SOCIETY

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on March 17, 1926, was called to order at 9 P M, the President, Dr Cuniffe, in the Chair

The following gentlemen were elected as Members of the Nominating Committee Alexander Goldman, Moses H Krakow, Maurice O Magid, Sidney Cohn, Milton R Bookman, Nathan B Jacobson, Henry Roth, Irving Smiley, Martin J Loeb, E John Dolan and Michael Rosenbluth

Election of Candidates being in order, it was moved and carried that the secretary be instructed to cast one ballot for the following candidates for membership Joseph Paul Alvich, A Harry Bussell, Louis A Kapp, Joseph E Feinsot, Benjamin Messinger, Samuel J Miller, Samuel Schecter and Arthur A Traum

The President announced that the meeting of the Medical Society of the State of New York, which is this year held under the auspices of the

Bronx County Medical Society, will take place at the Waldorf-Astoria on March 29th, 30th and 31st He appealed for the cooperation of the members, especially for the banquet, which will be held on March 30th

The Scientific Program proceeded as follows
Paper

"Intestinal Obstruction," John B Deaver

The following doctors participated in the discussion upon the Paper presented by Dr Deaver Drs Henry Roth, J Lewis Amster, L Miller Kahn, Sidney Cohn, Milton R Bookman and Louis Sheinman

Dr Sidney Cohn, in the name of the Bronx Surgical Society, thanked Dr Deaver, and it was moved and carried that the Bronx County Medical Society extend a vote of thanks to Dr Deaver

Respectfully submitted,
I J LANDSMAN, M D, *Secretary*

COURSES IN PUBLIC HEALTH

Physicians who wish to do public health work will be interested in the announcement of summer courses given by the College of Physicians of Columbia University, New York City, under the direction of Dr Haven Emerson, Professor of Public Health

Thirteen courses are announced, each with daily classes, extending from one to five weeks, from July sixth to August thirteenth The courses are as follows

- 1 Public Health — Administration and Rural Hygiene
- 2 Public Health Engineering
- 3 School Health Inspection
- 4 Epidemiology
- 5 Clinics and Health Centers
- 6 Public Health Law
- 7 Industrial Hygiene

- 8 Factory Inspection
- 9 Mental Hygiene
- 10 Social Hygiene
- 11 Child Hygiene
- 12 Tuberculosis
- 13 Introduction to Population and Health Problems

This is the fourth year that the courses have been offered by Columbia University

The courses are so arranged that a student may spend a whole day at the lectures Lectures are given daily in each course in order that a student having a vacation of only a fortnight may complete the courses which he chooses

A prospectus of the courses may be obtained from the College of Physicians and Surgeons, 437 West 59th Street, New York



BOOKS RECEIVED



Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits or in the interests of our readers

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REDUCING FAT

The New York Times, February 24th, has an account of a conference in the Academy of Medicine on February 23rd on the subject of the prevailing fad of reducing weight. The article quoted Dr. Gregory, of the Psychopathic Department of Bellevue Hospital, as saying:

"Mental breakdowns from this fad are on the increase, 225 cases being traced to it last year. The reduction of weight was not the real factor on the breakdowns, but it was the final cause. Such individuals were of a pathological psychopathic type with a tendency to psychopathic disturbance which might have been overcome if the patient had not reduced her weight to the point where she became irritable and depressed. In all cases of reduction, when the individual is willing to resort to all sorts of means of reducing her weight, the starting point is a mental condition."

Dr. Russell M. Wilder, of the Mayo Clinic, was quoted: "The modern fad for reducing has been productive of more good than harm."

There seemed to be a considerable difference of opinion regarding the effects of reducing weights, and of the methods employed. The article said that a committee was appointed to investigate the question.

The weight of the body is largely dependent on a proper endocrine balance. With some the balance is struck when the body is appreciably fat, and with others, when it is lean. The balance may change, and the lean young man may become obese in his forties. If the endocrine balance is disturbed, the patient will be weakened, whether it is by too little or too much diet. An excellent example of this is the effect of insulin in either too little or too great dosage.

The endocrine balance is largely dependent on heredity, and so heredity plays a large part in fatness and leanness. Dr. C. B. Davenport, of the Eugenics Record Office, Cold Spring Harbor, discusses the subject of heredity and weight in a brief paper in the U. S. Public Health Reports for November 27, 1925. He had investigated the histories and measurements of several hundred children in Washington, D. C., and had come to the conclusion that heredity had a great effect on nutrition, and must be considered in judging the hygienic weight of a patient.

VALUE OF FREE SERVICES OF DOCTORS

The New York Sun, December 31st, quotes the directors of the proposed Physicians' Home that the doctors of New York City contribute sixteen million dollars worth of free medical services annually. Since there are only slightly less

than 10,000 doctors listed in Greater New York, according to the Physicians' Directory of the Medical Society of the State of New York, each physician contributes an average of sixteen hundred dollars worth of medical services each year.

The same authority estimates the money value of free medical services given by doctors of the United States outside of New York City at \$135,000,000 annually, and bases its estimate on an average contribution of \$821, or about one-half that of the average physician in New York City.

The estimation further includes the statement that the average doctor makes a free contribution of 40 per cent of the value of his services. If this is true, then the average annual income of doctors is \$4,000 in New York City, and \$2,000 in the rest of the country.

It is the popular conception that doctors are financially prosperous. Some amass wealth, some acquire fame, and a few are noted for their altruistic motives, but no one knows how much money the average doctor makes. However, his credit seems to be as good as that of the average lawyer, or school teacher, or engineer, or journalist.

ACCURACY IN WRITING

Reading a newspaper is largely a matter of getting quick impressions from rapid glances at emphatic words. Writers for the "tabloid" morning papers take a small idea and repeat it over and over in such a form that it gives an impression of profundity of thought and research, when it really is only surmise. The *Herald-Tribune* of April 5 comments on this kind of writing as follows:

"The cynicism of the editors of the *Macfad-dengraphic* about the mental capacities of their readers is appalling, the accuracy of their estimate is heartbreaking. These gentlemen hazarded the guess that, if they should label a picture 'an accurate composite photograph' their public would confuse accurate with actual, and take the word composite to be some technical and non-essential terms. They were right."

"Next they calculated that if they should describe a Life Story as 'authorized by Gerald Chapman' the same public would skip lightly to the conclusion that the verb authorize comes directly from the noun author, and believe Chapman to be the author of the series. They appear to be right again."

"So the circulation of the little pink fellow increases by leaps and bounds, and the will of the people is still widely reputed to be the will of God."



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BOOK REVIEWS



THE ART OF MEDICAL TREATMENT With Reference Both to the Patient and to his Friends By FRANCIS W PALFREY, M.D. Octavo of 463 pages Philadelphia and London, W B Saunders Company, 1925 Cloth, \$4 50

We have here a long waited book on treatment. The subject is taken up in an orderly and decisive manner. Not only are drugs and physical treatments considered, but what is seldom seen in other books, what to tell the patient's family and friends is very thoroughly considered. The entire management of any one case is put down in one, two, three order, and can be read in a minimum amount of time.

Where drugs are mentioned definite dosages are given and hence the reader is put on a definite trail. It is needless to say that the treatment considered for each disease is the last word in medicine.

The mode of diet calculations is gone into deeply and as in most treatment books we have a diet for obesity.

At the back of the book drugs are considered under their own class head such as stimulants, astringents, etc. Their dosage and indications are noted.

And last but not least is a chapter devoted to the treatment of quacks and pseudo medical cults. This completes a very clearly and concisely written book on medical treatment.

KENNETH MACINNES

PSYCHOLOGICAL HEALING A Historical and Clinical Study by PIERRE JANET, Professor of Psychology, College of France. Translated from the French by Eden and Cedar Paul. Two volumes. The Macmillan Company, New York, 1925. Price per set, \$14 00

This work is a comprehensive textbook dealing with all phases of psychological healing. The author's wide personal experience has given him an ample supply of case histories on which to draw in order to exemplify his point. The subject matter is interesting and the style is readable. The scope of the work is indicated by its division into the following four parts, namely, (1) search for mental and moral action, (2) utilization of the patient's automatism, (3) psychological economics, and (4) psychological acquisitions.

FREDERIC DAMRAU

THE THERAPY OF PUERPERAL FEVER. By Privatdozent Dr ROBERT KOEHLER, formerly Assistant Gynecological Department Krankenhaus Wieden, Vienna, Austria. American edition prepared by HUGO EHRENFEST, M.D., F.A.C.S., Associate in Obstetrics, Washington University School of Medicine, twenty-seven illustrations. The C V Mosby Co, St. Louis, Mo., 1925. Price \$4 00

Koehler has reviewed the treatment of puerperal fever. Surgery except for drainage is condemned, and the utter futility of most therapeutic procedures shown. Non-specific protein therapy and chemotherapy are discussed in a frankly controversial manner, and illustrative cases and necropsies from the author's apparently wide experience are used in support of the points he makes. Blood transfusion, so popular here, is dismissed with brief notice.

In general, the author is pessimistic as to the value of all treatment, and shows that "convincingly good results" cannot be proved for any method of treatment so far tried. The illustrations are mostly temperature charts, and there is an extensive bibliography which is, however, rather weak on American names.

Ehrenfest has rendered a great service in the translation of this work, for the treasures of German literature are still inaccessible to a great many students.

C. A. G

MANSON'S TROPICAL DISEASES A Manual of the Diseases of Warm Climates Edited by PHILIP H. MANSON-BAHR, D.S.O., M.A., M.D., D.T.M., and H. CANTAB, F.R.C.P., Lond. Physician Hospital Tropical Diseases, London., Eighth Edition, Revised. 20 color plates, 7 half-tone, 387 figures, maps and charts. William Wood and Co, New York, 1925. Price, \$11 00

Since the publication of the seventh edition of this book, Sir Patrick Manson, the original author has died, and this well known and authoritative text on Tropical Diseases has been revised and remodelled "in order to bring it abreast of the latest developments in this branch of medicine" by Dr Manson Bahr.

This text is such a standard in its field and so well known internationally, that it is not necessary to speak in detail of the contents. The material presented is described in such a logical and pleasing literary form, that it makes very pleasant reading. With a few exceptions, the diseases included are mostly of infectious origin, and quite a number of them may be encountered in temperate climates. For this reason it is a volume in which any physician will find much that is interesting. The publishers are to be congratulated on the very neat, compact and beautifully illustrated volume they have turned out.

J. C. REGAN

SYNOPSIS OF MID WIFERY AND GYNECOLOGY By ALEC W. BOURNE, B.A., M.B., B.Ch. (Camb.), F.R.C.S. (Eng.) Third Edition, Revised and Enlarged, with numerous Diagrams. William Wood and Co., New York, 1925. Price \$4 50

Within a book of 434 pages is given a complete synopsis of obstetrics and gynecology. Numerous line drawings are scattered through the text. The author has treated his subject in a surprisingly complete manner, displaying a wide knowledge of his subject, and a painstaking arrangement of the subject matter. As a complete and quick reference to any subject in the domain of obstetrics and gynecology it will be appreciated by the busy practitioner. The book is exactly what its title suggests, a synopsis. It is a real one and should serve as a useful supplement to the ordinary text-book.

F. B. DOYLE

INTRAVENOUS THERAPY—ITS APPLICATION IN THE MODERN PRACTICE OF MEDICINE. By WALTER FOREST DUTTON, M.D., Visiting Physician to the Northwest Texas Hospital. 64 half-tones and line engravings, some in colors. Second revised and enlarged edition. F. A. Davis Company, Philadelphia, 1925. Price \$6 00

Our recent experiences with those important therapeutic agents such as insulin, pituitrin, parathyroid, etc., serve to emphasize the importance of the subcutaneous and intravenous route for medication. This second edition of Dutton has been revised and much new material added. The edition is freely illustrated, the methods and technique are made perfectly clear and the indications and contra-indications for all the procedures are fully discussed. The book is divided into two parts the first of which deals with the problem of general technique. Twelve chapters are devoted to this phase and here we have a complete consideration of the subject of blood transfusion as well as intravenous anesthesia, use of arsenical preparations and venesection. The second part is devoted to the general subject of medication in the different diseases.

The author has taken up a difficult subject and has made a good job of it.

H. M. FEINBLATT

RADIOGRAPHY A Manual of X-ray Technique, Interpretation and Therapy By CHARLES D ENFIELD, M.D., F.A.C.P., Roentgenologist, St. Anthony's Hospital, Louisville, Ky 194 Illustrations P Blakiston's Son & Co, Philadelphia, 1925

The author of this work has attempted to produce something that would be of assistance to the beginner in Roentgenology. It is designed chiefly as an elementary reference book for those who for various reasons are compelled to do some x-ray work in connection with other work in medicine.

There is in this work all the information necessary for equipping and operating a small laboratory suitable for doing x-ray work within certain limitations. The technique of various examinations is well illustrated and there are a number of reproductions of x-ray negatives to aid interpretation. We unhesitatingly recommend this book to that class for whom it was intended

J G W

DIE PROPHYLAXE DER GROSSEN SCHILDRÜSE GLEICHZEITIG EIN STÜCK VERGLEICHENDE KLIMATOLOGIE DER SCHWEIZ UND EIN LEITFADEN FÜR SYSTEMISCHE NATURWISSENSCHAFTLICHE FORSCHUNGEN Von Dr med. HEINRICH HUNZIKER, Arzt in Adliswil bei Zürich. Mit einem Beitrag von Dr med. Hans Eggenberger, Arzt in Herisau (Appensell) Gr 8°, 360 Seiten, mit einer farbigen Tafel, 9 Abbildungen und 155 Tabellen. Preis, Fr 12. Verlag Ernst Bircher, Aktiengesellschaft Bern und Leipzig, 1924

This book is a voluminous, painstaking and extensive survey of the subject which the author treats. As he states the work concerns the prophylaxis of goitre, exclusive of the surgical conditions of cystic goitre and the atypical tumor formations whether benign or malignant. He restricts himself to the condition of the so-called physiologic goitre enlargements which do not harm the patient nor cause any particular suffering. Cases of the latter belong to the realm of surgery and internal medicine.

He treats of the importance of Iodine in all forms of life whether plant or animal and also of the general problems relating to goitre and iodine. Parenchymatous enlargement of the thyroid is found with Iodine deficiency. In many communities this deficiency has been made up by adding small doses of Iodine to the cooking salt.

Climatic conditions relating to goitre were extensively studied leading up to the important problem of prophylaxis in all its ramifications. The result of an extensive study of the relation between climatic conditions and goitre in Swiss recruits is reported. Thus, the factors influencing atmospheric conditions such as heat, humidity, altitude, condensation and the like are discussed in detail and with reference to their influence on the occurrence of goitre.

It is difficult to distinguish the line of separation between the normal gland and goitre and hence the author has used the phrase, "Prophylaxis in the case of the enlarged thyroid gland," meaning thereby any simple enlargement from the mildest to the most extreme. A careful distinction is made between prophylaxis and treatment, mention being made that in America, iodine is given mostly for treatment and therefore larger doses are used than those recommended for prophylaxis. A chapter is devoted to the practical application of Hunziker's work.

Considerable space is devoted to a discussion of suitable and workable methods of measuring the enlarged thyroid. Careful, in fact elaborate measurements were made. The size of the gland was studied in its relation to the length of the body, the weight and intelligence of the individual. Iodine is shown to support the natural growth processes

Furthermore the author shows that iodine given in fractions of a milligram daily, acts not only as a prophylaxis for the large thyroid gland but is a simple remedy of the greatest importance for the improvement in general health. It was found that more iodine was required in the cases of girls with enlarged glands, than in boys.

The book is recommended to all those interested in the relations of iodine to the occurrence of simple goitre. Deficiency of iodine is indisputably established as the cause of this condition. Parts of the book seem needlessly long. It is recommended particularly to students of the goitre problem especially research students, in fact to all those interested in the larger aspect of public health with special reference to the eradication of simple goitre in any population where it occurs.

EMIL GOETSCH

PHYSICAL CHEMISTRY IN BIOLOGY AND MEDICINE. By J F McCLENDON, Ph.D., and GRACE MEDES, Ph.D. Octavo of 425 pages, illustrated. Philadelphia and London, W R. Saunders Company, 1925. Cloth, \$4.50

There are two parts to the book. Part I is Physico-Chemical, dealing with The Colloid Particle, Hydrogen Ions, etc., while Part II is Physiologic, treating of Thermodynamics in the Living Body, Ionic Equilibria in Blood, etc.

The discussion of a number of important subjects is inadequate, e.g., Hydrolysis and Ampholytes. The language is loose in places, and inaccuracies are not rare, e.g., the definition of polar compounds (p 315), the statement "In case one of the radicals of an electrolyte is weak and the other strong" (p 82), and the fifth method of determining the iso-electric point (p 185). Frequently odds and ends of observations are lumped together haphazardly, giving the impression of an abstract of the literature rather than of an introduction to the subject (e.g., pp 125-6). In discussing causes of stomach acidity, theories from Prout (1825) to date are given while the Donnan membrane theory is not even mentioned. In the discussion of proteins, the Hofmeister series is given prominence while Loeb's name is not mentioned once. The long lists of references totalling about 120 pages would be better adapted for the biologist if the references were given in the order of increasing difficulty.

The book does not fill the need of the practitioner who wishes to understand and apply the findings of physico-chemical research—it was not written for that purpose. As the authors say in the preface, it is intended for research workers in biology and medicine.

MURRAY J SHEAR.

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index. Forty-first year 1923. WILLIAM WOOD & Co, New York. \$5.00 net.

The recent 41st yearly edition of the Medical Annual is a splendid summary and abstract of the important work and productions of the past year. Of special value are the articles on team work in consultation, the use of the X-ray in the treatment of Basedow's disease and malignancy, early reduction of congenital dislocation of the hip, reduction of salt intake in hypertension, the use of quinine, early signs of carcinoma of the breast, foreign protein therapy, basal metabolism, reduction of intracerebral pressure with hypertonic solutions, localization of brain tumors by encephalography, epidemic encephalitis, epidemic hiccup, luminal in epilepsy, infant feeding, rickets, biliary drainage, newer methods in the treatment of arthritis, value and methods of transfusion, protein treatment of asthma, insulin therapy in diabetes, and treatment of nephritis.

M. A. RABINOWITZ.

PHYSICAL DIAGNOSIS OF DISEASES OF THE CHEST By JOSEPH H. PRATT, A.M., M.D., and GEORGE E. BUSHNELL, Ph.D., M.D. Octavo of 522 pages with 166 illustrations. Phila. and London, W. B. Saunders Co., 1925. Cloth, \$5.00.

The authors present an excellent book on the subject. Anatomy, physiology, pathology, and physics are well correlated in their relationship to the physical findings in the heart and lungs in health and disease. The well known diseases of these organs are considered in detail, but scant consideration is given to the less well known conditions. All the modern means of diagnosis are given sufficient consideration for their value to be clearly recognized by physicians. This book will be of value to any person interested in the diseases of the chest.

J. ARTHUR BUCHANAN

PREVENTIVE MEDICINE. By MARK F. BOYD, M.D., M.S., C.P.H. Second edition, revised. Octavo of 429 pages with 135 illustrations. Philadelphia and London, W. B. Saunders Company, 1925. Cloth, \$4.00.

In this excellent book the author has endeavored to present briefly, the salient features of modern preventive medicine. The material included represents the minimum knowledge in this field that should be expected of a student of medicine or a general practitioner. The author contends and truthfully so that the profession as a whole is neglecting the opportunity to play the predominant rôle in the new field of preventive medicine and public health. He hopes the book will bring home to all the necessity for a change in this respect.

The subject matter is written in a clear concise style. The literature has evidently been carefully consulted so that the viewpoints expressed are brought entirely up to date, making a most useful book, presenting a rather complicated subject in a short yet sufficiently complete and simple manner.

Section I covers the epidemiology of diseases due to invading microorganisms, Section II deals with deficiency diseases, Section III with occupational diseases, Section IV with diseases arising in the puerperal state, Section V with diseases transmitted from parent to offspring, Section VI with special aspects of hygiene and sanitation, Section VII with demography, Section VIII with public health administration.

JOSEPH C. REGAN

THE CHEMICAL AND PHYSIOLOGICAL PROPERTIES OF THE INTERNAL SECRETIONS By E. C. DODDS, Ph.D., B.Sc., M.B., B.S. and F. DICKENS, M.A., Ph.D. Octavo of 214 pages. London, Humphrey Milford, New York, Oxford University Press, 1925. Cloth, \$2.50. (Oxford Medical Publications.)

A summary of the physiological and chemical properties of the internal secretions is presented together with workable descriptions of the preparation and standardization of the products. A chapter is given to the secretions of each of the following organs: pancreas (insulin), pituitary body (tethelin, pituitrin, hypophyseine), thyroid (iodothyronin, iodothyreoglobulin, thyroxin), ovaries, suprarenals (adrenaline, adrenin, epinephrine). Chapter VI is entitled "Miscellanea" and deals briefly with secretin, the parathyroid glands and spermine.

The authors say in the preface "This volume has no claim to originality other than that it contains, under one cover, a summary of the literature dealing with the chemical aspects of the internal secretions. In the course of preparation (of a series of lectures) we were impressed by the vast amount of references to be consulted, and by the absence of any collected account of the original papers. On the completion of

this task we were tempted to publish our findings, mainly with the view to saving other workers the somewhat dreary task of looking up all the original researches."

The authors have accomplished a worth while task. Research workers especially, both in the laboratory and in the clinic, will find this volume useful and convenient.

MURRAY J. SHEAR

EYE, EAR, NOSE AND THROAT MANUAL FOR NURSES. By ROY H. PARKINSON, M.D., Visiting Oculist and Aurist to St. Joseph's Hospital, San Francisco, California. Illustrated. The C. V. Mosby Co., St. Louis, 1925. Price \$2.25.

As the author states in his introduction, there has been a real need for just such a manual. The general arrangement of the text is to be commended, while the illustrations serve their purpose well, a few more diagrams and illustrations of this kind would be helpful.

It is very important that there be erroneous or misleading statements in a textbook for nurses, for it is true that the pupil nurse accepts entirely that which her medical teacher tells her. This is even more so when she obtains her information from a textbook.

It is hoped, therefore, that another edition will appear in which the author will exercise more latitude in his selections of the instruments used for operations, and that more space and attention will be given to some of the following:

The after care of patients, who have just been operated upon for ethmoid and sphenoidal sinus disease, is of much more importance to the nurse than the instruments used. This is also true of tracheotomy cases, where nursing is of so much value and where a thorough understanding of what has been done and what to expect is so essential.

The statement that Bronchoscopy is a very rare procedure, carries with it the intimation that the nurse need know nothing about it. This part of the text it is hoped will receive further attention.

Throughout the book there is an evident lack of real nursing information.

THE WRITING OF MEDICAL PAPERS By MAUD H. MELLISH. Second edition, revised. 12mo of 168 pages. Philadelphia and London, W. B. Saunders Company, 1925. Cloth, \$1.50.

The average medical writer needs this little book just "like a baby needs its mother," with apologies to Beethoven. Mrs. Mellish has made a careful study of the literary shortcomings of us doctors, quite a monumental task, you may be assured. Her book is, therefore, of inestimable value to all who are interested in the technic of medical writing.

Certain important phases of medical writing do not, however, receive the complete consideration that they deserve. For example, you could not learn how to produce really good tabulation on the basis of information contained in this book. Now tabulation is frequently the cream of an article, as distinguished from the accompanying verbal apple sauce. Tabulation need not necessarily look like a Chinese puzzle, it may be made as clear as a tobacco advertisement. In the matter of references the style of citation employed by the American Medical Association publications, certainly an important matter, is treated like a stepchild.

There is so much of real value in this book that such defects as those mentioned above shrink into insignificance. Certainly "The Writing of Medical Papers" has found its place on the reviewer's one-yard book shelf.

FREDERIC DAMRAU

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THE PHYSICIAN AND THE PATIENT OF THE FUTURE

By Wendell C Phillips, M D
NEW YORK CITY

A review of the President's Inaugural Address before the American Medical Association, at its seventy-seventh annual session at Dallas, Texas, April 20th, 1926

Dr Wendell C Phillips spoke for the entire medical profession of the Nation when he pictured both the physician and the patient of the future in his inaugural address as President of the American Medical Association. His vision was not an idealism of a far distant future, but an advance showing of what is already in existence, demonstrated by small groups of practical men, and sponsored by the leaders of the medical societies of the Nation, the States, and the Counties. His vision is the unfolding of past experience, and is founded on the sure basis of historical facts and the trends of action of the human mind. He has read the signs of the times and planned a system of the practice of medicine that considers the patient and the community as well as the physician. He has recognized the mutual interdependence of the people and the doctors, and has outlined practical ways by which the doctors may fulfill the high ideals of their calling, and the people may receive the full benefits of medical service. It was indeed a happy thought to consider the patient equally with the physician of the future.

THE HERITAGE OF THE FUTURE PHYSICIAN

Dr Phillips opened his address with a consideration of "The Heritage of the Future Physician," as revealed in past history. "The marvelous achievements of the men of medicine to day," he said "are largely the outgrowth and fruition of similar achievements of the founders of our art. The history of no other science contains brighter pages than those illumined by the scientific conquests of the great men of medicine. The new developments in medical science have created the necessity for changes in modes methods and economies so far reaching as to affect all phases of national family, and individual life. The physician both of the present and of the future must be an integral part of our civilization and much concerned with its changes."

After quoting some of the high lights of medical progress, he says

"The future may bring about the complete eradication of diphtheria, scarlet fever, whooping cough, and possibly all the exanthems, while yellow fever, typhus fever and all plagues are falling before the gigantic march of preventive medicine, based on bacteriologic discoveries."

"This has been the contribution of the physician to the march of human progress. Truly, neither the physician of the present nor the physician of the future need ever blush when contemplating his professional heritage."

CHANGES IN MEDICAL PRACTICE

Dr Phillips then spoke of "Changes in Present-day Medical Practice," and of the rise of departments of health and lay organizations whose object was to make practical application of the newer discoveries in preventive medicine whose usefulness time alone could demonstrate.

"We build on the experience of the past. The rapid strides in medical discoveries of the last two generations, together with the more practical employment of sanitation and preventive medicine, have already effected great changes in the actual duties of the practicing physician. The daily round of our immediate predecessors was made up largely of the treatment of infectious and contagious diseases. The day book of the family physician usually recorded visits to families for the treatment of measles, scarlet fever, diphtheria, typhoid fever, or malaria only. He was educated to treat disease. He knew little of preventive medicine, sanitation, or hygiene, nor did his medical education provide such knowledge. Older living practitioners know of the changes which mark the new era only by keeping abreast of the times."

"National, state, and municipal departments of health have gradually become powerful and controlling factors in preventive medicine, sanitation, and hygiene. Health and welfare or-

ganizations, both national and local, have also invaded the field of preventive medicine. Great industrial organizations have introduced various health measures, believing it to be for their own best interests from an economical standpoint, as well as for the benefit of the hundreds of thousands of employees. Pay clinics and group practice have made some slight imprint on the modes of practice of to-day. Furthermore, the publicity work of all these agencies, together with that of our own Association, has gradually created a demand from the public for more information regarding personal health. The outcome of these measures has led to confusion regarding not only the present but also the future of medical practice. But the confusion of the present need never become chaos in the future, provided the medical profession prepares to meet the demands of the patients of the future."

HEALTH EDUCATION

Now that medical science has advanced to such a stage that preventive medicine is entirely practical, the next step is to bring a knowledge of that science to the people and to the doctors themselves. The production of the new medical ideas is assured, their sale to the great mass of distributing agents—the doctor, and to the people, the buyers—is the next great activity of the medical profession. Health education is the basis on which preventive medicine rests.

Dr Phillips considered health education from two standpoints: 1, that of the public, and, 2, that of the physician.

HEALTH EDUCATION OF THE PUBLIC

Regarding "Health Education from the Standpoint of the Public," Dr Phillips said:

"The new era in medicine which the physician of the future must be prepared to enter must also rest on the foundation of a wide and comprehensive plan of personal and public health education. Professional policies, narrowly conceived, can never successfully oppose the rightful interest of the public. The failure properly to educate the public regarding the achievements of medicine and its importance in the preservation of life and the prevention of sickness may be considered as such a policy."

A CHALLENGE

The President called attention to the great demand on the part of editors of periodicals for medical articles suited to lay readers, and quoted the criticisms printed in the *Saturday Evening Post*, and reproduced in the *NEW YORK STATE JOURNAL OF MEDICINE* on page 219 of the March 1st issue. He read the following challenge of the *Saturday Evening Post*:

"S. I. F. the American
Med. Co. made such a

good start along these lines, ought to take up the matter in a big way and work out a comprehensive program which would unify the efforts of the agencies already in the field, and cover the lay press of the whole country."

Regarding this quotation, Dr Phillips said:

"This statement is the challenge to organized medicine. I pledge its fulfillment so far as lies within my power, and I sincerely hope that influential laymen of our country will accept the challenge. I am proud to state with the greatest emphasis that the medical profession is well able to supply the brains for any and all nation-wide efforts for individual and community health education that the great business publications and the advertising world will undertake to promulgate and finance."

EVERY PHYSICIAN A HEALTH TEACHER

"Physicians until recently have contributed insufficiently to public health education. To day every licensed physician is being urged to prepare himself to teach his own patients the principles of health. Sufficient progress has already been made to warrant the statement that the field of public health education must and should be invaded by the physician. Organized medicine has approved this measure."

As evidence of the educational activity of the American Medical Association, Dr Phillips quoted the establishment of the monthly publication, "Hygeia," for lay readers, the promotion of periodic health examination, and the successful campaign to purify the pages of the leading dailies of quack advertisements. He also commended the annual address of Governor Alfred E. Smith of New York as a model example of a wise treatment of public health problems by the civic authorities.

THE PHYSICIAN IN HEALTH EDUCATION

Dr Phillips then took up the subject of "Health Education from the Standpoint of the Physician," and said:

"The proposed campaign of public health education will surely create a demand for new contacts between patient and physician. Physicians must give a new significance to the word patient, for in the new order of things both sick and well people must and will be recorded in the lists of their physicians. In one of his recent addresses, Dr George E. Vincent has called attention to the demands which this newly informed public is likely to make. 'They will demand that their needs should be met,' he has said, and he warns that unless the medical profession shall organize to meet the demand in the proper spirit, various forms of state medicine are likely to become the order of the day. 'No thoughtful person would welcome the extension of state medicine to the legitimate and necessary...'"

activity, but if private initiative and voluntary cooperation fail, it may be impossible to resist the demand for governmental intervention' in the practice of medicine. In other words, the state may be called on to organize and control not only methods of medical treatment but also the financial remuneration of the physician. I believe that this is unnecessary, but it surely will come unless we ourselves give heed to the coming needs and formulate our modes and methods to meet this demand in the spirit of true medicine. For medical agitators to stand on the housetops and shout defiance to state medicine will never solve a problem which can only be solved by perfecting a better way. The better way is to promote by precept and example the vast importance of maintaining the personal relationship of physician and patient. This is an essential fundamental in medical practice."

"The physician of the future must prepare himself educationally, morally, psychologically and sociologically, to make the painstaking intimate personal contact with his individual patient so effective, outstanding and unassailable that no other form of medical practice will be permitted by the layman himself."

"What have I described? No new word need be coined for the answer. The future health needs of the public can best be supplied by a more humane, painstaking, better qualified, general practitioner of medicine."

"The family physician should remain the foundation of medical service. His outlook, functions, and training need modification to meet changing needs. The field will be great and the opportunity for service boundless. The loyal service of the ideal general practitioner of medicine will go far to limit the advent of insurance methods of treatment, state systems, industrial groups, and other socialized principles which the true psychologists and humanists in medicine look on as mechanistic, soulless, bureaucratic, card index systems, discounting the spirit of individual relationship characterized by the better way."

THE PERIODIC HEALTH EXAMINATION

Discussing the periodic health examination as a measure of preventive medicine and public health, Dr Phillips says

"This family physician must educate his patients and community in preventive medicine and be to some extent a health administrator. His chief role and his chief service will be to keep his patients well. Evidently, such service can be made possible only by maintaining intimate, clinical information, well recorded, regarding every man, woman and child who seeks his service. And every man, woman, and child in every community should have his health recorded in of our citizens his family physician. Too many of changes." carry through life with only

fairly good health, and while they accomplish their daily duties, these fairly well persons may never know the exuberance and happiness of perfect health. Hence, one goal of the future practitioner of medicine will be the attainment and maintenance of exuberant health, which is the inherent right of every person. A higher average of overflowing good health means a higher average of happiness, comfort, usefulness, and economic value of the individual. The superman will never materialize without superhealth."

EDUCATION OF THE PHYSICIAN

Regarding "The Education of the Future Physician," Dr Phillips says

"The education of the physician of the future must provide instruction in the art of medicine as well as in the science of medicine—not less of science, but more of the art is the educational need of the hour. This view of medical education of the physician presages the future output of medical men whose scientific thinking will be less in mechanical lines, less in the technic of the laboratory, and more in the terms of the humanist. He must be taught to think more in terms of life, health, and humanity, than of disease and death."

"The medical education of the present places too much emphasis on the material and too little on the spiritual phases of medical practice. The student of medicine must be taught how to care for and advise the man as well as the patient. To this end, nothing need be done to disturb the high standards of medical education which the American Medical Association has set. It is necessary, however, that greater elasticity be given through proper modification of the present curriculum and policies of medical education."

Dr Phillips then enumerates a list of subjects of which the modern physician should have fundamental knowledge, and says

"If our future practitioner fails in these things, his 'place in the sun' will progressively diminish, and his rôle will be invaded by industrial, state, and various group practices,—which will be a great disadvantage to our inhabitants. The family physician should remain the foundation of medical service."

"In view of these added requirements in the education of the future physician, it is unthinkable even to contemplate any lowering of the standards of medical education. Nor should a limited medical training be approved for men who might be willing to practice in rural communities. Any claim for a limited medical training is fallacious in reasoning and untenable, for the reason that the best in medical care is none too good for our lowliest inhabitants, no matter where they reside."

Concerning training in the specialties, Dr Phillips says

"The undergraduate medical school should

limit its teaching to the output of all-round qualified general practitioners of medicine only, and it should in no sense attempt to prepare men for the various specialties. Preparation for all the specialties should be entirely dependent on graduate school of medicine. So far as our country is concerned, courses for specializing may be secured through graduate medical teachings in the universities and post-graduate schools."

"The courses for the majority of the specialties should cover a period of at least three years. In several of the specialties in his country, particularly the eye, ear, nose and throat, examination boards have been created for men who desire to be formally recognized by the national societies. Fortunately, it is no longer necessary for men to seek the graduate training in foreign countries. Under this scheme of education, every specialist must first receive the preliminary training required by the general practitioner of medicine."

NEED OF HOSPITALS

Regarding the "Need of Hospitals," Dr Phillips says

"Hospitals or similar facilities for the application of the refinements in diagnosis and treatment should be available in all communities, and particularly in rural districts. At present 25 per cent or less of the practitioners, both city and country, have hospital facilities. It seems somewhat difficult to supply proper hospital facilities in many rural communities, but our proposed extensive program of public health education should lead the enlightened laity to meet this demand. Every physician should be in contact with hospital facilities and experience—his progress in his profession depends on it. In every instance, particularly in rural communities, open staff organizations are preferred, but hospitals connected with medical schools must necessarily be closed staff organizations. It is possible that in other hospitals the open-staff organization could be made practicable by having a so-called executive staff or regular attendants in all departments who would be responsible for the character of the professional conduct of the hospital, and this staff would be supplemented by an auxiliary or associated staff properly classified and made associate members of the executive staff departments. This would afford every worthy physician of the community a hospital

connection, but he would be obliged to follow the regulations of the hospital made and adopted by the executive staff."

SPIRITUAL OUTLOOK

In closing, Dr Phillips spoke of the spiritual outlook of the future physician, and said

"Let us hope that the physician of the future will be fully conscious of the vastness of the causes which he must advocate and the usefulness of the deeds he must accomplish, that he may have wisdom, poise, and capacity of understanding that will breed in his patient an extraordinary confidence and esteem, that he may have a vision of a healthier, happier world which will blossom into unheard-of activity. May we hope that to this end he will dedicate himself 'through service to all that will advance and maintain and increase the sum of human happiness'."

"Every man who looks toward the future is charged with being a dreamer. But the verdict of history has always been that the onward march of science, religion, and civilization has been led by dreamers. I have ventured modestly to tell my dream, knowing that it will find a thousand responsive cords in the hearts of my colleagues whose ambition and passion are to serve our fellowmen."

"Who dreams shall live. And if we do not dream,
Then we shall build no temple into time
Yon dust cloud, whirling slow against the sun,
Was yesterday's cathedral, stirred to gold
By heedless footsteps of a passing world
The faiths of stone and steel are failed of proof,
The king who made religion of a sword
Passes, and is forgotten in a day
The crown he wore rots at a lily's root,
The rose unfurls her banners o'er his dust.
The dreamer dies, but never dies the dream
Though Death shall call the whirlwind to his aid,
Enlist men's passions, trick their hearts with hate,
Still shall the vision live. Say nevermore
That dreams are fragile things. What else
endures

Of all this broken world save only dreams!

"DANA BURNET"

Every physician will wish to read the entire Inaugural Address of Dr Phillips. It is printed in full in the April 24th issue of the *Journal of the American Medical Association*.

A SURVEY OF OUR PRESENT KNOWLEDGE OF TETANUS AND ITS TREATMENT *

MATTHIAS NICOLL, JR., M D, State Commissioner of Health
ALBANY, N Y

TETANUS was first made reportable to the State Department of Health in 1918. The facts that I am about to present are based on the analysis of 1,407 deaths from tetanus, in the State including the city of New York, reported to the Division of Vital Statistics from 1907-1921, inclusive. In 1922, the Department began the circulation of a questionnaire among physicians and hospitals reporting cases of tetanus, and thus has been able to make a critical analysis of an additional 262 cases reported up to and including 1925. While it may be contended that the total number of cases, 1,669, concerning many of which very little information has been obtained, is not sufficiently large to

ancies which seem to exist between generally accepted conclusions regarding the prevention and treatment of tetanus and the results of the statistical survey which I shall now present

TABLE I

Mortality from Tetanus in New York State 1907-1925

Year	No Deaths	Mortality rate per 100,000 population
1907	128	1.49
1908	124	1.41
1909	109	1.22
1910	111	1.21
1911	97	1.04
1912	114	1.21
1913	94	0.98
1914	107	1.10
1915	90	0.91
1916	69	0.69
1917	77	0.76
1918	73	0.71
1919	73	0.71
1920	69	0.66
1921	72	0.68
1922	79	0.74
1923	69	0.63
1924	68	0.62
1925	60	0.54

form a basis for definite conclusions, especially as regards the results of preventive and curative methods of treatment, they, nevertheless, permit certain inferences which, it must be confessed, I was unprepared for, since they are greatly at variance with personal experience based on extensive laboratory experiments and close, though limited, clinical observations made a decade or more ago.

Those of you who have had the opportunity, which has been denied to me, to study the occurrence, prevention and treatment of tetanus under war and later peace-time conditions, will, I hope, be able to explain the apparent discrep-

* Read before the Annual Meeting of the Medical Society of the State of New York at New York March 31st 1926

TABLE II

Tetanus Mortality by Months (with percentages) 1907-1915 and 1920-1925

Month	No	1907-1915 Per cent of totals	No	1920-1925 Per cent of totals
January	53	5	25	6
February	57	6	20	5
March	48	5	16	4
April	68	7	25	6
May	75	8	34	8
June	98	10	40	10
July	128	13	79	18
August	116	12	45	11
September	98	10	29	7
October	100	10	55	13
November	69	7	30	7
December	64	7	19	5
Total	974	100	417	100

The mortality from tetanus has been decreasing rapidly from 1907 to date (Table I). The rate per 100,000 population in that year, for the whole State, was 1.49, and in 1925, 0.54—a reduction of practically 64 per cent. The rate has fallen with a fair degree of regularity year by year. This can be fairly attributed to no other cause than the more general use of antitoxin as a preventive.

SEASONAL OCCURRENCE

A study of the mortality by months brings out the well recognized fact that during the open seasons of the year, from June to October, tetanus is more likely to occur, due, of course, to the greater chances of infection with the causative organism (Table II).

RELATION OF FATALITY TO INCUBATION PERIOD

An analysis of 220 cases tends to confirm the direct relation between fatality and length of incubation, being almost twice as high among cases with incubation under a week as among those which developed after two weeks (Table III).

TABLE III

Incubation period in days	Totals	Recovered	Died	Fatality rate
0-7	90	15	75	83
8-14	92	36	56	61
Over 14	38	22	16	42
All periods	220	73	147	67

INCUBATION PERIOD CLASSIFIED ACCORDING TO THE SITE OF INJURY

An analysis of the same number of cases, to determine what relation, if any, the site of injury bears to the incubation period, shows a notable preponderance of injuries to the head and neck, in which tetanus developed after an incubation of less than a week, with very little difference as regards short incubation between wounds of the upper extremities and wounds of the lower extremities. The figures, however, are not sufficiently large from which to draw anything more than a suggestion (Table IV)

TABLE IV

Incubation Periods (220 cases) Classified According to the Site of Injury

	Incubation Periods in Days					
	0-7		8-14		Over 14	
	No	Per Cent	No	Per Cent	No	Per Cent
Head and neck	18	55	8	24	7	21
Arms, hands and trunk	43	37	53	46	19	17
Legs and feet	29	40	31	43	12	17
All sites	20	41	92	42	38	17
						220

FATALITY RELATED TO SITE OF INJURY AND INCUBATION PERIOD

On the other hand, there seems to be a definite relation between fatality and the site of injury at all incubation periods (Table V). Thus, in an analysis of 220 cases in which there was injury of the head and neck, there was a fatality rate of 79 as against a general fatality rate following all sites of injury of 67

RELATION OF FOURTH OF JULY ACCIDENTS TO TETANUS

Tetanus has long been associated—and with just cause—with Fourth of July celebrations. Of late years, we have heard a good many congratulatory comments on what is popularly known as the "Sane Fourth." If the occurrence of tetanus, as a result of Fourth of July celebrations, is to be taken as a criterion, it would seem that this State, at least, is quite as insane as formerly

TABLE VI

Deaths from Tetanus occurring in June, July and August, 1913-1917—Classified According to their Presumable Relation to Independence Day Celebrations

Nature of Injury	June	July	August	Totals
Gunshot wound	1	0	0	1
Burn, nature not given	1	0	0	1
Injury, nature not given	0	1	0	1
Wound, nature not given	3	0	0	3
"Idiopathic"	0	1	0	1
Unknown origin	0	3	1	4
Injuries apparently not related to Independence Day Celebrations	17	33	31	81
Totals	22	38	32	92

A consideration of the figures from 1913-1917 (Table VI), shows that out of 92 deaths from

tetanus occurring in June, July and August, only one is known to have been caused by an injury presumably connected with Independence Day celebrations, as compared with 16 deaths for the period from 1922-1925, inclusive. Even if injuries of unknown nature and cases of unknown origin are included, the total which might possibly have had some relation to Independence Day celebrations in the first five-year period is only 11 (Table VI) as compared with 19 in the last four-year period, if we also include, in the latter, cases of unknown origin (Table VII)

FORTY-FIVE CASES OF TETANUS CLASSIFIED ACCORDING TO THEIR RELATION TO INDEPENDENCE DAY CELEBRATIONS, 1922-1925

A study of the nature of wounds, inflicted during Fourth of July celebrations, brings out very clearly the menace of the blank cartridge and toy pistol. I think that you will agree with me that the State should exercise some authority in the form of restriction of the kind of weapons and ammunition which are being used to celebrate our great national holiday. Casual observation would lead to the conclusion that, while the comparatively innocuous old-time firecracker is not so much used by the younger generation, the explosives which are now on the market and sold apparently with little or no restriction, have much more deadly possibilities, even apart from their ability to cause tetanus, than those available a decade or more ago.

PREVENTION BY ANTITOXIN

It is not possible to give an estimate, of any value, regarding the number of preventive inoculations that are now being annually administered. Judging, however, by the number of preventive doses that are going out from the state laboratory the number is very large and constantly increasing, a fact which unquestionably accounts for the great diminution in the number of tetanus cases which occur annually.

That antitoxin not infrequently fails to prevent the disease, in cases of very extensive and badly infected wounds, is generally recognized. It is not so well known that antitoxin is not always a preventive even in the case of comparatively slight wounds. In our series of statistics, it was found that it failed to prevent tetanus in 18 cases, in 13 of which it was said to have been administered on the day upon which the injury took place. Fourteen of these patients died—a fatality rate of 78 per cent. In two instances, however, a statement was made to the effect that the focus of infection might have been other than the wound for which the antitoxin was given. However, in these two cases, the onset of the disease was 14 and 16 days after the administration of the prophylactic dose, which appears to have been sufficient in quantity in all

instances Nine patients received 1,500 units and one was given a second dose of 1,500 units a week after the first. One patient was given 3,000 units at the time of the injury and developed the disease two weeks later The nature of the injuries in these cases are as follows

- 1 Compound fracture of forearm from fall
- 2 Laceration on back of right hand.
- 3 Thumb cut in woods
- 4 Finger caught in chain of hay press (nail lost)

tance of giving a second or even a third inoculation in injuries of this kind It is also apparent that blank cartridge wounds should come in this category I am not prepared to say whether double the ordinary preventive dose should be administered with or without repetition It may be mentioned that, in two instances, the physicians stated that they had reason to believe that the antitoxin given was over a year old If, as is

TABLE V
Fatality Related to Site of Injury and Incubation Period (220 Cases)

Site of Injury	0-7			Incubation Period in Days 8-14			Over 14			Totals		
	Total	Died	Fatality Rate	Total	Died	Fatality Rate	Total	Died	Fatality Rate	Total	Died	Fatality Rate
Head and neck	18	15	83	8	6	75	7	5	71	33	26	79
Arms, hands and trunk	43	39	91	53	31	58	19	7	37	115	77	67
Legs and feet	29	21	72	31	19	61	12	4	33	72	44	61
All sites	90	75	83	92	56	61	38	16	42	220	147	67

- 5 Third degree burns of buttocks, backs of thighs and calves or leg from gasoline explosion
- 6 Multiple wounds of legs from particles of steel, stone and dirt from explosion of pipe in ditch.
- 7 Third degree burns of hand and forearm from gasoline explosion
- 8 Compound fracture of both bones of left forearm from fall into street from tree.
- 9 Cut above ear from fall on cement floor in barn.
- 10 Blank cartridge wound in hand
- 11 Blank cartridge exploded in hand
- 12 Contusion and laceration of hand with fracture of phalanges of two fingers, followed by infection with gangrene in one finger

likely the antitoxin was manufactured at the state laboratory, this would not account for its failure to protect as there is always a surplussage in each immunizing dose to compensate for deterioration in strength

RESULTS OF ADMINISTRATION OF TETANUS ANTITOXIN BY VARIOUS METHODS

An analysis of 262 cases, as to the result of specific treatment by various methods, gives rather surprising results The death rate of all

TABLE VII
Forty-five Cases of Tetanus Classified According to Their Relation to Independence Day Celebrations 1922-1925

Nature of injury	Cases					Deaths				
	1922	1923	1924	1925	Total	1922	1923	1924	1925	Total
Blank cartridge wound	3	5	3	1	12	3	4	3	0	10
Toy pistol wound	0	1	0	1	2	0	1	0	1	2
Gunshot wound	2	1	0	0	3	1	0	0	0	1
Toy pistol or blank cartridge wound	0	1	0	0	1	0	1	0	0	1
Wound from fireworks	0	0	1	0	1	0	0	1	0	1
Firecracker wound	1	0	0	0	1	1	0	0	0	1
Injuries apparently related to Independence Day celebrations	6	8	4	2	20	5	6	4	1	16
Injuries apparently not related to Independence Day celebrations	14	0	7	0	21	10	0	7	0	17
Unknown cause	3	0	1	0	4	2	0	1	0	3
Totals	23	8	12	2	45	17	6	12	1	36

- 13 Injury to head from automobile accident.
- 14 Scalp wound from fall in cistern.
- 15 Scratch on knuckle from piece of tin
- 16 Crushing injury to hand
- 17 Lacerations on head and body and fractures of skull and ribs from railroad accident
- 18 Burns on face, hands forearms, thigh and calf, fracture of humerus and laceration of skin near it

cases is 68 per cent, and of 18 cases in which no antitoxin was used, 100 per cent On the other hand, it is clearly shown that the intraspinal method of inoculation, whether used alone or in combination with one or more other methods, not only did not prove its superiority but resulted in a very high fatality rate, namely 87 per cent in 15 cases, but even more surprising in 14 cases in which it was used in combination with intramuscular inoculations, it gave

It will be noted that in a majority of these cases tetanus followed an extensive wound or wounds which immediately suggests the impor-

a mortality rate of 93. The lowest death rate occurred in nine cases in which all four methods were used, namely, 33 per cent, the next lowest in 22 cases in which the intravenous method only was used, in which the death rate was 50 per cent. The intraspinal and intravenous methods in 37 cases gave precisely the same mortality as that among all cases, mild, severe, treated by all methods and not treated (Table VIII).

TABLE VIII

Methods of Administration of Antitoxin Treatment Classified According to Outcome

Methods of Administration	Total	Died	Fatality Rate
Intraspinal only	15	13	87
Intraspinal and intravenous	37	25	68
Intraspinal and intramuscular	14	13	93
Intraspinal and subcutaneous	6	5	83
Intraspinal, intravenous and intramuscular	27	16	59
Intraspinal, intravenous and subcutaneous	10	7	70
Intraspinal, intramuscular and subcutaneous	2	0	0
Intraspinal, intravenous, intramuscular and subcutaneous	9	3	33
Intravenous only	22	11	50
Intravenous and intramuscular	21	12	57
Intravenous and subcutaneous	10	8	80
Intravenous, intramuscular and subcutaneous	1	0	0
Intramuscular only	40	28	70
Intramuscular and subcutaneous	7	5	71
Subcutaneous only	20	14	70
No serum used	18	18	100
Unknown	3	1	33
All cases	262	179	68

A summary made of the same cases, grouped according to the results obtained by each method, whether alone or in combination, gives the most favorable place to that series of cases in which the intravenous method was included, namely 56 per cent fatality. There is apparently little choice as between the other three methods, alone or in combination. When four methods were used, the number of cases being small, the lowest fatality rate occurred, namely 33 per cent, the next lowest fatality rate occurred when three methods were used, 57 per cent (Table IX).

TABLE IX

Summaries—Fatality Rates According to Methods of Administering Antitoxin

Method	Total	Died	Fatality Rate
Intraspinal	120	83	69
Intravenous	147	82	56
Intramuscular	121	77	64
Subcutaneous	65	42	65
One method only	97	66	68
Two methods	95	68	72
Three methods	40	23	57
Four methods	9	3	33

It may be thought that the comparatively unfavorable results, following the use of the intraspinal method, were due to delay in the use of the method, especially on account of inability to find a physician who was familiar with the

technique. That this is not the explanation is shown by the classification of the cases according to the day of the disease on which the serum was first administered and on which it was first administered intraspinal. This, in brief, shows that the serum was first administered intraspinal fully as early as when given by other methods (Table X).

TABLE X

Cases Classified by Day of Disease on Which Serum Was First Administered and on Which Serum Was First Administered Intraspinal

Day of Disease	Serum First Administered		Serum First Administered Intraspinal	
	Cases	% of Total	Cases	% of Total
1	77	29	40	34
2	60	23	29	25
3	26	10	10	8
Over 3	67	26	38	32
Unstated	32	12	1	1
Totals	262	100	118	100

Another logical explanation for the comparatively unfavorable results of the intraspinal method of administration would be that this method was used more often in the severe type of cases, corresponding with those with a short incubation. That this is true is shown by an analysis of 190 cases, classified according to the incubation period and the method of treatment used (Table XI). This shows that in 51 per cent of cases treated at all periods of incubation, the intraspinal method was used alone or in combination, against 42 per cent of cases treated at all periods of incubation in which the intravenous method was used alone or in combination. While this, to a certain extent, would seem to indicate that the intraspinal method of treatment was put to a more severe test, the differences between the percentages is not sufficiently great to account for the comparatively better results obtained by the intravenous method.

TABLE XI

Cases in Which the Incubation Period and the Method of Administration of Antitoxin Were Known, (190 Cases), Classified According to the Method of Administration and the Length of Incubation Period

Method	Incubation Period in Days			
	No	0-7	More than 7	All Periods
Intraspinal	45	51	43	88
Intravenous	50	42	70	120
Intramuscular	37	37	64	101
Subcutaneous	23	44	29	52
Combinations of all methods	79	42	111	190

CASES IN WHICH ANTITOXIN WAS GIVEN INTRAMUSCULARLY AND INTRASPINAL

The highest death rate, among treated cases, was shown to be in a group of fourteen treated intraspinal and intramuscularly, in which the

mortality was 93 per cent, there being only one survivor in this group (Table XII)

Table XII shows the nature of these cases, the time of incubation and the amount of antitoxin used. While the number of cases is small, the results obtained were discouraging.

223 CASES CLASSIFIED ACCORDING TO AMOUNT OF ANTITOXIN USED IN TREATMENT WITH FATALITY RATES

An analysis of 223 cases, according to the amount of antitoxin used in treatment, seems

CONCLUSIONS

1 Deaths from tetanus in the state of New York from 1907-1925, are but one-third the number which occurred eighteen years ago. This can be attributed to no other cause than the more general use of tetanus antitoxin as a preventive.

2 Deaths from tetanus, as a result of Fourth of July celebrations, are increasing. It would seem advisable for the State to exercise some control over the sale and use of apparatus and explosives now constituting a grave menace to life and limb.

3 The fact that tetanus occasionally occurs after a single preventive dose of antitoxin strongly suggests the advisability of repeating the dose one or more times.

TABLE XII
Cases in Which Antitoxin Was Given Intramuscularly and Intraspinaly

Incubation period in days	Nature of Injury	Day of disease of 1st administration		Amt. of antitoxin (in thousands of units)	
		Any method	Intra spinously	Total	Intra spinously
6	Blank cartridge wound, little finger . . .	2	2	75	not stated
3 (possibly longer)	Slight laceration of finger from milk bottle, probably infected in barn	Not stated		300	200
Not stated	Fracture of skull from kick of horse . . .	4	5	*20	*
9	Stepped on rusty nail . . .	7	8	53	30
7	Infected wound of head from stone thrown by playmates	2	3	18	6
9	Punctured wound of eyelid from fall . . .	2	2	30	18
8	Compound fracture of forearm from fall . . .	2	2	30	10
18	Probably operation for hydrocele . . .	3	3	80	20
15	Laceration over patella from fall . . .	1	1	36	16
Not stated	Laceration of 2nd and 3rd fingers of hand and fracture of bones by steam shovel . . .	1	2	45	20
5	Infected wound in chin from stick while at play.	1	1	10	5
6	Compound fracture of humerus . . .	1	1	90	35
11	Punctured wound of foot by nail . . .	1	1	30	15
8	Dorsum of foot punctured by rusty nail . . .	1	1	**219	**9

* 20,000 units given intramuscularly, 10 c.c. given intraspinaly
* * Additional dose of 15 c.c. given intraspinaly

to show an advantage in using massive doses of antitoxin, although the number of cases in which such massive doses were used is smaller than the number in which ordinary or fairly large doses were used (Table XIII). I give these figures for what they are worth, but I am not prepared to advocate, as a result of the showing, massive doses of antitoxin as a routine.

TABLE XIII

223 Cases Classified According to Amount of Antitoxin Used in Treatment with Fatality Rates

Units of Antitoxin	First day of disease			First & Second days of disease (When serum was given on 2nd day)			All Days		
	Total	Died	Lat	Total	Died	Lat	Total	Died	Lat
1,000-29,000	53	39	74	59	41	69	57	42	74
30,000-99,000	25	17	68	58	45	78	112	82	72
100,000 & over	2	1	50	11	5	45	54	23	43
223 cases	80	57	71	128	91	71	223	147	66

in all severe and extensive wounds, and possibly the advisability of administering twice the standard preventive dose at the first inoculation.

4 An analysis of 262 cases of tetanus, in which the method of treatment is known, fails to show greater value of the intraspinal method over the intravenous alone or in combination.

5 There seems to be some indication of the value of massive doses of antitoxin—this matter is worthy of further study.

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MORBIDITY IN OBSTETRICS—ITS REDUCTION BY THE USE OF MERCUROCHROME AS A VAGINAL ANTISEPTIC *

By HARRY WELDAY MAYES, A.M., M.D.

From the Obstetric department of the Methodist Episcopal Hospital of Brooklyn, N. Y.

DURING the last seventy-five years the mortality and morbidity from childbirth have remained practically unchanged, they are just as high to-day as they were before the days of Pasteur and Lister and the discovery of antiseptics. This is a lamentable fact when we consider our present knowledge of bacteriology and its relation to modern surgery.

During the last three years, in the city of Greater New York, the death rate per 1,000 re-

following delivery, not including the day of delivery, and occurring not later than the tenth day, we have considered a "morbidity", this is the standard accepted by the Johns Hopkins Hospital. A large number of the cases have just enough fever to be included in this class, but there are many patients who, with the old technique, had septic temperatures for days and who were in the hospital for weeks and months, still they only counted as a "morbidity". We have endeavored

	1923		1924		1925		1925	
	Iodine preparation		Iodine preparation*		Cases delivered with mercurochrome preparation after Feb. 20		Cases on the second obstetrical service after February 20	
	Cases	Per cent morbidity	Cases	Per cent morbidity	Cases	Per cent morbidity	Cases	Per cent morbidity
Total deliveries	938	16.1	1,258	13.9	1,168	8.5	566	5.6
Cesarians	61	65.5	63	44.4	50	46.4	16	37.5
Deliveries less Cesarians	877	12.5	1,195	12.3	1,118	6.8	550	4.7
Ward	342	12.2	505	12.1	551	6.5	295	4.4
Private	535	12.6	690	12.6	567	7.2	255	5.1
Primipara	413	14.7	628	15.9	566	8.8	262	6.4
Multipara	464	10.5	567	8.4	552	4.8	288	3.1
OPERATIVE DELIVERIES								
Low forceps	248	11.3	427	12.1	291	8.9	125	9.6
Medium forceps	74	10.8	105	18.9	63	11.1	21	4.7
High forceps	18	27.7	35	37.1	19	5.2	3	0
Versions	9	66.6	23	26.1	13	0	8	0
Bag inductions	13	30.7	15	20.0	24	8.3	11	9.0
Totals	362	14	605	15.2	410	8.7	168	8.3
SPONTANEOUS DELIVERIES								
Totals	515	11.4	590	9.3	708	5.9	382	2.3
Breech	45	8.8	63	9.5	34	8.8	4	25.0
Scanzoni	43	7.1	71	18.3	38	10.7	4	25.0
Median episiotomy	321	14.9	500	11.8	213	7.0	35	2.5
Lateral episiotomy	28	17.8	38	36.8	320	7.8	182	7.1
Lacerations								
2nd degree	70	7.1	71	22.5	53	7.5	25	8.0
3rd degree	26	19.2	35	14.2	16	0	4	0

Table showing a comparison of the morbidity following the use of a 3½ per cent solution of iodine, when applied externally as a pelvic preparation for delivery, with a 4 per cent solution of mercurochrome applied to the perineum and instilled into the vagina.

* During 1924, 268 cases included in the above table had mercurochrome used in the preparation for delivery with a morbidity of 12.6 per cent.

ported births from puerperal septicemia has actually increased. In 1923 it was 0.89, in 1924, 0.99, and in 1925, 1.07, or the equivalent of 138 reported deaths for last year. How many more deaths were indirectly caused by infection, or how many cases were reported as dying from pneumonia, eclampsia, acute cardiac dilatation, etc., when the real cause was a puerperal sepsis, will never be known.

The standard of morbidity used varies with the different clinics and the percentage varies accordingly. Any patient whose temperature reaches 100.4 F (38 C) on two successive days

to analyze our statistics, giving not only the percentage, but also the actual days' morbidity and the fraction of a day for each patient.

For almost two years we have been using a 4 per cent solution of Mercurochrome, in the preparation of the patients for delivery on the Second Obstetrical Service of the Methodist Episcopal Hospital of Brooklyn, and, as time goes on, we are more convinced of the efficacy of the procedure.

In a preliminary report published in the *American Journal of Obstetrics and Gynecology*, July, 1925, I compared its use with that of iodine and the routine soap and water preparation. In the beginning the results were somewhat discourag-

* Read before the Annual Meeting of the Medical Society of the State of New York at New York, March 31, 1926.

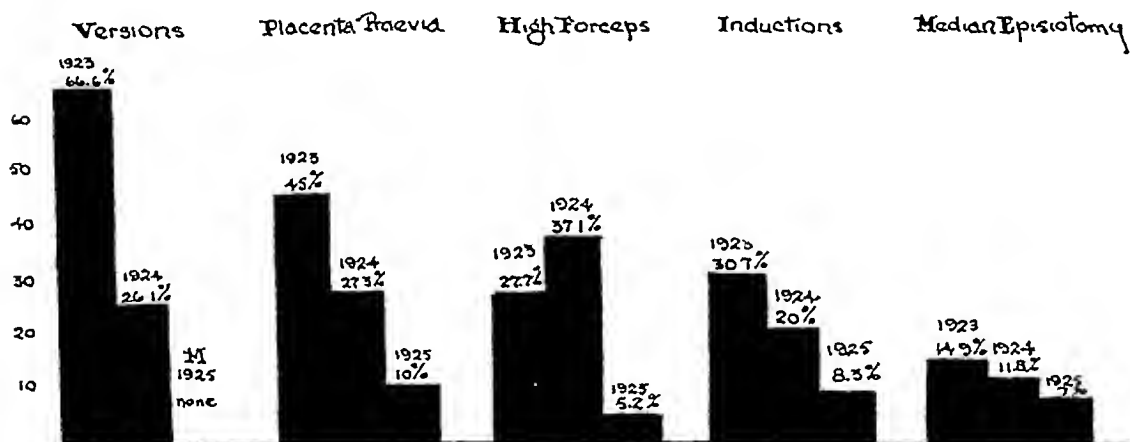
ing, as we had a morbidity for the first 300 cases, which was somewhat more than that obtained by the iodine technique. Nevertheless, we had no prolonged sepsis, and cases with bag induction of premature labor, traumatic deliveries and manual removal of the placenta, often had little or no morbidity. Thus we attributed to the fact that these cases usually had one or more vaginal examinations at which time the mercurochrome was used, and cultures, vaginal and cervical, often were positive when taken immediately after using the mercurochrome, but taken an hour or more later, they were usually negative.

Since February, 1925, 680 cases have been delivered on the Second Obstetrical Service with an uncorrected morbidity of 4.4 per cent and a corrected morbidity of 3.0 per cent. This is a reduction of two-thirds of the morbidity published in the previous report. The decrease in the average

as a lochiometra, six as parametritis, four had infected perineums and in the remaining cases the morbidity was of short duration and the actual cause not determined.

There were six maternal deaths in the 1,395 deliveries. One died at the time of delivery from an acute cardiac dilatation, one, moribund on admission, died from hemorrhage due to premature separation of the placenta, one from pulmonary embolus on the seventh day, one from acute yellow atrophy of the liver, another was admitted in poor condition, after futile attempts had been made to deliver her on the outside, and she died before delivery was completed, and the other had an adherent placenta and died from shock and hemorrhage.

Several other hospitals have followed our technique, and for the most part the reports have been very enthusiastic. Dr. Geo. Kornfeld of



Comparison of the morbidity for various operative procedures for the years 1923, 1924 with the morbidity when the mercurochrome was used during 1925. The drop in morbidity during 1924 was undoubtedly due to the fact that 268 cases were prepared with mercurochrome.

number of days' morbidity was 61 per cent as compared with the morbidity of the first three hundred cases, and we have the same reduction when we compare these results with the morbidity for the years 1923 and 1924.

One thousand three hundred and ninety-five cases have been delivered on both services since February, 1925, with a gross morbidity of 6.7 per cent and a corrected morbidity of 4.4 per cent. If we omit the eight cases which were delivered soon after admission and in which the mercurochrome either was not instilled at all, or was instilled only a short time before delivery, we have a corrected morbidity of 4 per cent. Twenty-eight of the patients had conditions not relating to the delivery which accounted for the morbidity. Eight of these had respiratory infections, ten breast complications, four, colitis, four, nephritis, one a phlebitis, and one acute articular rheumatism. Among the sixty-six cases of corrected morbidity, nineteen were diagnosed

the Jewish Hospital of Brooklyn, reports two hundred and ninety-one cases from the ward service of Dr. Beach, with an uncorrected morbidity of 2.4 per cent and a corrected morbidity of 1.7 per cent, and the other service in charge of Dr. Ronsheim had an uncorrected morbidity of between 4 and 5 per cent for the same period and 6 per cent for the year.

Fifty-five cases have been delivered on the ward service of Dr. Polak at the Long Island College Hospital with a morbidity of 7.4 per cent.

Dr. Dowd from the Norwegian Deaconess Hospital of Brooklyn reports 190 ward and private cases with a morbidity of 5.2 per cent. He compares this with 193 cases before using mercurochrome which gave a morbidity of 12.2 per cent. Three deaths occurred without the mercurochrome and none when mercurochrome was used.

It is true that we have well-equipped hospitals, highly trained obstetricians and the latest equip-

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MERCUROCHROME IN HEMORRHAGE

It is almost impossible to sterilize the birth canal during an active hemorrhage, and careless measures taken to control the bleeding often result in serious infection.

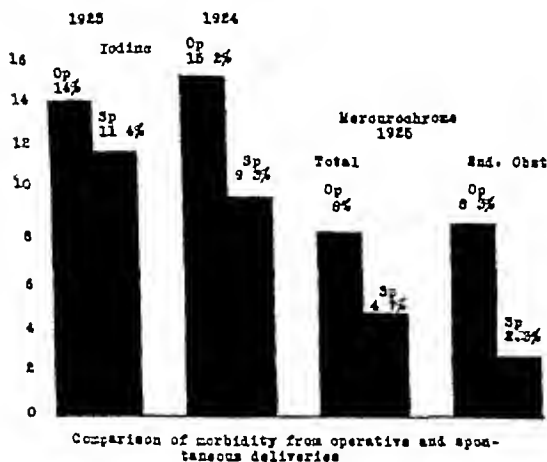
Placenta praevia—The vagina may be packed with mercurochrome gauze or gauze saturated with mercurochrome. If the hemorrhage is mild repeated installations will do much to reduce the possibility of infection, if an induction, version, or cesarian section is performed.

Postpartum hemorrhage—Vaginal packing with gauze as described above or if this does not control the bleeding, the packing of both the uterus and vagina with mercurochrome gauze is recommended. The mercurochrome tends to overcome the chance of infection and the gauze may be left in 24, 48 or even 72 hours. We have noticed no toxic symptoms from the drug.

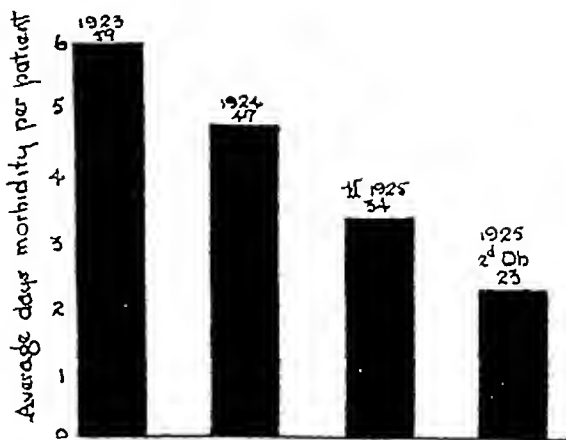
Incomplete Abortion or Miscarriage—Vaginal installations should be used the same as during labor. If an operation is necessary the preparation should be the same as for delivery and a strip of gauze saturated with mercurochrome should be inserted into the uterus and removed before attempting a dilatation and curettage. Mercurochrome may be instilled into the uterus, and if necessary the uterus and vagina may be packed with mercurochrome gauze.

THE STAIN

The discoloration of towels, bed-linen, and drapings used in the delivery room, by mercurochrome, is entirely removed by the ordinary



laundry methods. The first laundering may not remove all the stain unless chemicals are used, but with repeated washings it entirely disappears. Thus, although we have used mercurochrome for over two years and our counterpanes and linen have been frequently soiled, none of them have been destroyed or even damaged by the mercurochrome. Our tile, concrete and linoleum floors show no effects of the stain.



Comparison of the average days morbidity per patient for the years 1923, 1924 and the cases delivered after the use of mercurochrome since February, 1925.

Stains on the hands of the nurse or doctor are almost entirely due to carelessness. If proper containers are used for the mercurochrome and if gloves are used for delivery there should be no stain on the hands, but if such should happen it can be removed by the use of acid alcohol (one and one-half drams of dilute hydrochloric acid in eight ounces of 50 per cent alcohol).

If there is a hole in a glove during a delivery or vaginal examination the mercurochrome will stain the finger sufficiently to keep it from being a source of contamination.

CONCLUSIONS

1 We feel convinced that every mother is entitled to the protection offered her by an attempt to sterilize the birth canal before delivery.

2 We have been able to reduce the morbidity from childbirth over 50 per cent by the use of a 4 per cent solution of mercurochrome as a vaginal antiseptic during labor and delivery.

3 Mercurochrome is a valuable adjunct in the treatment of antepartum and postpartum hemorrhages, and in the care of abortions and miscarriages.

4 The technique is simple and it can be used by the midwife or general practitioner as well as by the doctors in the hospital.

5 Vaginal examinations should be the rule when using mercurochrome because they assist in getting the solution in contact with the entire vaginal mucosa and apparently do not increase the morbidity.

6 Vaginal cultures following the use of mercurochrome are sometimes negative for 24 or 48 hours and then show positive growths. The mercurochrome, although not actually destroying all the bacteria, has possibly inhibited their growth for a period of time sufficient for them to be washed from the vagina by the lochia or absorbed by the maternal tissues.

7 Repeated vaginal instillations have had no noticeable effect on either the mother or baby.

ment for the sterilization of gloves, instruments and dressings used in the delivery room, but all this avails little if we neglect or disregard the fact that in a certain percentage of cases the birth canal contains pathogenic organisms which are as dangerous to the expectant mother as those which are destroyed by the sterilization mentioned above

At the onset of labor the vault of the vagina may at times be sterile, but before labor is completed, there are many sources from which infection may have occurred. The doctor, the nurse, or the patient herself may transfer the bacteria from the perineum, labia or lower vagina to the vicinity of the cervix. Then again it is not an uncommon occurrence to see the cervix at the

sprayed or painted with a 4 per cent solution of mercurochrome, and after inserting two fingers into the vagina, the pelvic floor is depressed and a dram of mercurochrome is instilled and worked well into the folds of the mucous membrane and around the cervix or presenting part. This should be repeated at least every eight hours during labor, before delivery, and before all vaginal examinations.

If the delivery is prolonged, or if there is any question of the perineum or vagina being soiled by feces or otherwise, repeated instillations should be made.

If there is a laceration, or if episiotomy is performed, the torn or cut surfaces should be cleared from blood and mercurochrome applied

No of days morbidity	2	3	4	5	6	7	8	9	10	11	12	13	15	16	28	43	51
Cases 1923	35	25	13	7	4	4	3	2	2	2	1	3	2	1	1	1	
Cases 1924	31	25	10	3	1	5	2	2				1				1	1
Mercurochrome 1925	27	25	15	2			6	1		1							

The above table shows the number of patients for each period of morbidity for the years 1923, 1924, and also the cases delivered after using mercurochrome since February, 1925. Cesareans not included.

vaginal outlet during a uterine contraction, or for it to be forced down during the expression of the placenta.

The advance and regression of the presenting part act similarly to the plunger of a syringe, and draw the secretions laden with micro-organisms to the region of the torn and bleeding cervix. If this is a fact, then it behooves us, if we would rob maternity of its horrors, to make an attempt, at least, to sterilize the birth canal.

In the beginning we painted the perineum and instilled the mercurochrome at the time of delivery. The results were not satisfactory, so we developed a rather complicated technique in which the mercurochrome was instilled on admission of the patient to the hospital, if she was in labor, and instillations were repeated at eight-hour intervals. The morbidity dropped over 50

before suturing.

If a cesarean section is indicated, there should be at least two instillations, an hour or more apart, before the operation.

If the membranes are ruptured and the case is potentially infected, or if delivery is attempted and disproportion found to exist, which threatens

Hospital	Mercurochrome used for perineal and vaginal preparation		Iodine used for perineal preparation only	
	Cases	Per cent morbidity	Cases	Per cent morbidity
M. E. H. Previous report	368	12.2	410	10.8
M. E. H. Present report	1,395	6.7	1,662	12.7
Jewish, Brooklyn	291	2.4	(1925)	6.0
Norwegian, Brooklyn	190	2.5	193	12.4
Long Island College	55	7.4		
	2,299	6.8	2,265	12.3

per cent in the next 1,000 cases. Then we endeavored to simplify the technique, and we feel convinced that the following method is more thorough, and the morbidity remains low.

TECHNIQUE

When the patient is admitted she is carefully prepared, and the external genitalia, are cleansed with green soap and water, the perineum is

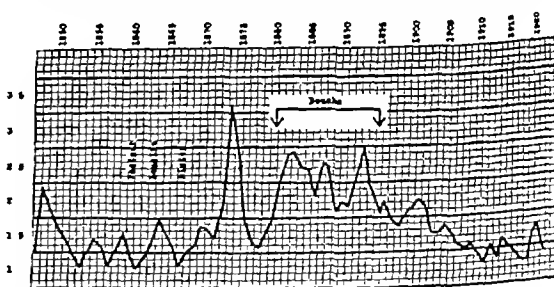


Chart showing the death rate of 1,000 live births for England and Wales from 1847 to 1921. The discovery of antiseptics and the use of douches caused apparently an increase in the death rate. The curve during the last ten years is where it was seventy-five years ago.

the life of the infant, then we would advise the instillation of three ounces of a one per cent solution of mercurochrome into the amniotic sack, and after one hour, the performance of a classical cesarian section.

Daily vaginal instillations of a one per cent solution of mercurochrome aid in the healing of perineal lacerations and add to the comfort of the patient.

To get the best results we have advised the installation of the mercurochrome at the onset of labor or as soon as possible after labor begins, nevertheless, we believe that it is better to use the solution just before delivery, than to use any of the other routine methods of preparation.

The urinalysis showed only a faint trace of albumin and no casts. Wassermann was negative. The blood clotting time was three minutes, forty-five seconds. Blood count was normal.

The patient was put on small doses of chloral hydrate and rest in bed for a few days in order

transfixed with three chromic gut sutures.

In view of the history, I felt that there was a definite possibility of malignancy and therefore placed three radium needles, each containing $12\frac{1}{2}$ mgm of radium, in the bladder, around the base of the growth. These needles were left in place for five hours. The bladder was closed in the usual manner around a large Pezzer drainage tube.

Pathological Diagnosis—The diagnosis from the pathological laboratory at the Woman's Hospital rendered by Dr Alfred Plaut, was "Fibroepithelioma or Benign Papilloma of the Bladder."

Subsequent Course—For three days following operation the patient continued to have very marked nausea and vomiting. The temperature came down to normal on the fifth day—the highest point at any time being 101.8° F.

During the first four weeks there were periods of more or less hematuria through the drainage tube which was removed after two weeks, and also later through the retention catheter. The patient's general condition was good after the first few days—the blood pressure varied between 202/102 the day after the operation, and from then on averaged 160/80. The suprapubic wound was allowed to close slowly by granulation.

On the 29th day of convalescence the patient complained of severe abdominal pain in the region of the bladder and a considerable quantity of blood was passed through the retention catheter.



Case of Ventral Hernia, front view

to try and reduce the hypertension, but without avail. We therefore decided to go ahead with the operation under spinal anesthesia. This type of anesthesia was selected because of the fact that while we prefer in such cases the parasacral, here it seemed inadvisable owing to the inability to properly secure an abdominal field block on account of the ventral hernia and on account of a corpulent person of short stature.

Operation was done on August 18th. The spinal anesthetic consisted of 12 centigrams of Neocaine. This anesthesia was complete and the only ill effects noted were those of a more or less persistent nausea, which not only lasted through the operation, but for three days afterwards.

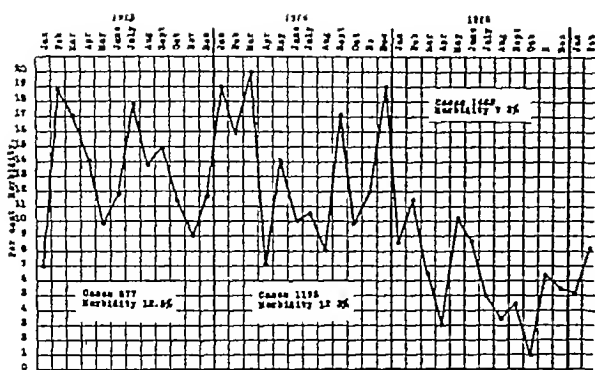
The ventral hernia and former operative scars rendered exposure of the bladder a rather difficult and tedious matter. In the course of dissection the peritoneal cavity was inadvertently opened twice, but was carefully closed. It was only, finally, by recognizing the deep fascia in the region of Poupart's Ligament on the right side, that we were able, by dissection, to relieve ourselves of the presenting hernia which had dissected anterior to the fascia and finally were able to expose the bladder and obtain a satisfactory field for operation upon it.

The growth was extremely friable and, on handling it came away in three pieces, leaving us with a small pedicle which bled very freely. This was excised and the base cauterized with the actual cautery, thus failing to check the hemorrhage entirely; the base was



Case of Ventral Hernia, side view

ter. In spite of irrigation of the bladder to remove blood clots hematuria and pain persisted, and she was given one ampule of Calcium Chloride intravenously. Following its administration the bleeding ceased almost immediately and



Curve showing the morbidity by months at the Methodist Episcopal Hospital of Brooklyn. During 1924, 268 cases were delivered after the use of mercurochrome, with a morbidity of 126 per cent. 225 patients had the iodine preparation for delivery during the first five months of 1925 with a morbidity of 111 per cent. After June 1st, 1925, all had the mercurochrome technique. Caesarian sections are not included.

8 I do not know whether mercurochrome is the drug best adapted to the use described above,

another may be found to take its place, but I am convinced that the idea is right.

9 We are of the opinion that a trial labor is justified in all borderline cases, that forceps failing does not necessarily mean a craniotomy, or that a hysterectomy should be done because a woman is potentially infected.

10 If the above technique were adopted by the Department of Health, and the use of mercurochrome made compulsory before all vaginal examinations or instrumentations, the same as is now required for the prevention of ophthalmia neonatorum, I am convinced that there would be a drop in the annual death rate from puerperal fever, and that the midwife and general practitioner would invariably wear gloves during their confinements, and their disregard for asepsis, would in part, at least, be overcome by the antiseptic.

In closing I want to thank Dr. Beach and Dr. Humpstone for the privilege of reporting cases from their services.

*A CASE OF PAPILLOMA OF THE BLADDER WITH INTERESTING SURGICAL AND POST-OPERATIVE COMPLICATIONS

By FRANCIS E. DUBOIS, A.B., M.D.

NEW YORK

From the Clinic of the Woman's Hospital, New York City.

THE following case of papilloma of the bladder is reported because of certain interesting surgical and post-operative complications which presented themselves during the period in which the patient was under our care.

A widow, 59 years of age, presented herself for treatment first on September 25, 1924. Except for the fact that her son was suffering with pernicious anemia and her mother gave a definite history of being a "bleeder," there was no other definite fact in the family history of note.

This patient had gone through twelve pregnancies. The second labor was followed by a severe post-mortem hemorrhage. A laparotomy was done in 1896 for retroversion and another in 1911—uterus, tubes and one ovary being removed.

When first seen she complained of hematuria, frequency, and dysuria. Physical examination showed a short, rather stout woman. At this time abdominal examination was negative except for a large ventral hernia, extending on the left side, from the costal margin to the inguinal region and across the midline in the suprapubic region. Cystoscopic examination was negative except for a pedunculated villous growth on the left side of the bladder, about the size of a walnut, arising from the region of, and obscuring the

left ureteral orifice. A diagnosis of "Benign Papilloma" was made and treatment with the high frequency spark advised. For a while the growth seemed to respond to treatments which were carried out at intervals of ten days to three weeks. The hematuria was much diminished and the frequency and dysuria lessened, but after a few of these treatments the growth seemed to increase in size, hematuria and dysuria became again the prominent symptoms and the question of operative interference was considered. Inasmuch, however, as this tumor appeared to be of benign character, we felt justified in trying the high frequency treatment for a longer period, but the patient's symptoms becoming so aggravated, chiefly those of frequency and dysuria, and the growth having reached the size where it acted more or less as a ball-valve at the internal vesical orifice, an operation seemed unavoidable. Inasmuch as there had been an inadequate response to the treatments with the high frequency current, it made us reasonably suspicious of malignancy in spite of a single pedunculated growth in the region of one ureteral orifice.

The patient was admitted to the Woman's Hospital, on the Urological Service, for operation, on August 13, 1925.

On admission the chief points on physical examination were the following. The large ventral hernia, before noted, a blood pressure of 220/120, a negative heart, and negative lungs.

* Presented at the Meeting of the Genito Urinary Section of the Academy of Medicine, December 16, 1925.

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sense of legal authority, by consent of those concerned with the disposal of the remains of the deceased, and where objection lies against the act, a course of education and sympathetic and tactful insistence upon the value of and personal satisfaction to those interested in the deceased which results from the autopsy, must be carried on by the physician. If presented in the proper manner to an intelligent person in many instances the objection will be overcome and sometimes willingness will be evinced to have the body opened.

But unless permission be obtained, it must be clearly borne in mind that it is an illegal act to perform an autopsy, in the absence of such statutory authority, for which a cause of action accrues (*Hassard vs Lehane*, 143 App Div 424, 128 N Y Supp 161) and for which damages may be obtained (*Larsen vs Cahase*, 47 Minn 307) or a criminal action may be instituted (Penal Law, N Y, sec 2214 also *Koerba vs Patek*, 123 Wis 453 *Danahy vs Kellog*, 126 N Y Supp 444, *Foley vs Phelps*, 1 App Div 551, 37 N Y Supp 471).

It is no defense in an action for damages for the performance of an illegal autopsy that it was necessary to perform the autopsy to enable the attending physician to determine the cause of death so that he could certify it upon a death certificate as required by statute (*Woods vs Graham*, 167 N W 113).

A hospital which permits an unauthorized autopsy to be made is liable for damages (*Darcy vs Presbyterian Hospital*, 202 N Y 259), but the plaintiff must allege and show that the hospital made, caused or procured the autopsy complained of (*Hasselbach vs Mt. Sinai Hospital*, 173 App Div 89, 159 N Y Supp 376).

In the absence of statutory authority those who are entitled to sanction the performance of an autopsy are, in order of their right, husband or wife, next of kin in the order of their right to administration if the deceased had died intestate and, when the deceased leaves a will appointing executors, they, having the right of possession of the body and the duty of burial, may give permission for an autopsy.

In the ordinary meaning of the term there is no property right in a dead body, property being something which a person possesses and controls to the exclusion of all other persons, something which he has acquired and holds by legal means. Obviously a dead body is not a thing which can be classified as capable of ownership by another (*Matter of Beekman Street*, 4 Brad, 503 *Pierce vs Proprietors, Swan Point Cemetery*, 10 R I 227, *Danahy vs Kellog*, 126 N Y Supp 444).

Yet the disposal of the dead interest mankind to a greater extent than does much which pertains to property itself, and indeed the opinion has grown up in civilized states that there is a

legal right to the person of the dead, to properly dispose of it and to guard against its violation and the law uniformly recognizes this right and any unauthorized invasion of such right is a wrongful act which constitutes an infringement on a legal right and damages for mental suffering may be recovered for if it is the direct, proximate and natural result of the wrongful act (*Larson vs Chase*, 47 Minn 307).

The same idea is present in primitive communities and from family or clan instinct or religious reasons, interference with the rites of sepulcher or with the cadaver are visited with penalties.

The law makes the parent responsible for the disposal of the dead body of a child (*Reg vs Vann*, 2 Div CC 325), or the husband for a wife or wife for husband (*Johnson vs Marinus*, 18 Ab NC 72 *Patterson vs Patterson*, 59 N Y 583 *Secord vs Secord*, 18 Ab NS 78), or the next of kin (*Snyder vs Snyder*, 60 How Prac 368), or the executors (*Patterson vs Patterson*, 59 N Y 583), or the person under whose roof the dead person lies though he may be reimbursed (*Matter of Tierney* 88 Misc. 347 151 N Y Supp 972), or if there be none of these the State through its public officers may dispose of it as provided by law (*General City Laws*, sect 20 *Consolidated laws*, Poor sec 84 *Insane*, sec 63 *Public Health Law*, 110 111).

In New York one has the right to dispose of his own body after death (*Penal Law*, sec 2210). In California it seems that a pecuniary value attaches to a dead body and one cannot dispose of it by will (*American Medicine*, April 6, 1901, p 37). In Pennsylvania one can dispose absolutely by will of his remains and courts will respect and protect the right of disposal or possession.

For New York the case of *Pettigrew vs Pettigrew*, 56 Ab 878, states the prevailing opinion on the subject of the paramount right over a dead body in the order of relationship previously stated.

These references in regard to the right of possession, control and disposal of a dead body seem relevant to establish the foundation upon which the right to deny autopsy rests, as well as to indicate the necessity for statutory enactment to overcome that right when exigency requires it to be done. Also, that how careful the physician must be not to violate through zeal, ignorance or malice this well founded right.

It is necessary for the public good at times that the sentiments pertaining to a dead body and the rights of those who hold them should be set aside and when such is shown by experience to be required, the legislature has placed the power to do so in the hands of proper officials and the courts have upheld the law whenever properly applied. It is this fact which creates a legal relation to the question of autopsy and the conditions under which this power is legally exercised as stated in the succeeding sections of the law.

the patient passed a comfortable night, and from that time on there was no further hematuria during her stay in the hospital. A second dose of Calcium Chloride was given two days later. Calcium Lactate was administered by mouth in 10 gr doses twice a day, for six days.

The blood count the day following this attack of rather profuse hematuria was—Reds—2,480,000, hmgb 60%, W B C—7,800, Polys—80 and Lymp 20. A rather interesting fact was, that the blood clotting time—four days after the attack of bleeding—was 3 minutes and 30 seconds, and after the patient had been on Calcium Lactate for several days, the clotting time was 8 minutes and 30 seconds. Patient was discharged on October 10th with wound healed and general physical condition good.

Two subsequent cystoscopic examinations

showed a normal bladder except for gradually diminishing congestion, edema, and a small slough at the site of the former growth.

Summary—Before concluding the report of this case I wish to briefly call attention to a few points which seem to me to be of interest.

In the *first place* the benign papilloma of the bladder failed to respond to the high frequency current, necessitating surgical intervention.

Secondly, a patient with essential hypertension, necessitating some form of local anesthesia.

Thirdly, a very large vernal hernia which greatly complicated any operative procedure on the bladder.

Finally, a marked secondary hemorrhage which was apparently controlled by Calcium Chloride.

Whether or not this patient is a "bleeder" is, however, a matter for conjecture.

THE MEASLES YEAR

To the Editor of the New York State Journal of Medicine

The discussion of the measles problem in your April 1st issue was very timely. Dr Godfrey's prophecy that nineteen hundred and twenty-six would be a "measles year" has proved true with a vengeance. In the city of New York during the first three months of this year over 23,000 cases of measles were reported, so that I should estimate that about 100,000 occurred.

The number of deaths reported as due to measles gives a very inadequate idea of the damage done, as most of the deaths are reported as due to the complicating pneumonia. A more accurate idea may be obtained by comparing the weekly incidence of measles, and deaths from broncho-pneumonia in infants and young children. The curves are nearly parallel. As epi-

demic catarrh was prevalent about the same time, it served to add fuel to the flame.

The advice to parents to protect their young children from contact with all persons who have "colds" is sound, but exceedingly difficult to carry out. The use of convalescent serum is valuable in institution but will not prevent the spread of the disease in the community. Of course the difficulty lies in the fact that the disease is most communicable at a time when its presence is not suspected. The spread of the highly communicable diseases of childhood can only be prevented by the *active* immunization of infants.

CHARLES HERRMAN, M.D., New York

Editor's Note For an article by Dr Herrman on active immunization against measles see this JOURNAL, Vol 23, No 3, March, 1923, page 93.

THE LEGAL RELATION OF THE AUTOPSY

By K SELLERS KENNARD, M.D.,

Assistant Medical Examiner City of New York

IN the field of medical practice the autopsy has always been the culmination of scientific endeavor in the quest for knowledge, as therapy has been on the part of the profession that of the humanitarian efforts to relieve suffering.

The exact study of disease is best effected only with the section and examination of the dead body, and from the days of earliest investigations to the present time this procedure furnishes, on the one hand, the only means of the exact determination of the cause of death, and on the other, a never ending source for contention and litigation from those who are ignorant of the law or of the exact purpose for which autopsies are performed.

It is to be expected that the majority of the laity will raise objections to a post-mortem examination, for, as they are unappreciative of its purpose except in a general way, they are blinded by sentiment and cannot or will not understand the ultimate benefit to be derived therefrom. And we must admit that, in some cases, scientific zeal or mere curiosity or pride of opinion sometimes give just cause for this resentment and protest, for neither can ever form a valid excuse for overriding the humane sentiment or religious feelings which attach to a dead relative or friend.

The performance of autopsies for the purpose of instruction or for statistical reasons, while of inestimable value, can only be made, in the ab-

aforesaid medical colleges, schools or universities shall have a priority claim for the purpose of teaching anatomy

An important question arises under this section. While it gives morgues and other institutions the right to deliver any corpse in their possession, not placed there by friends or relatives for keeping or burial, to medical colleges, and to hospitals the right to hold an autopsy upon a corpse unless claimed within forty-eight hours after death, there seems to be placed upon these institutions the obligation to make reasonable inquiry to locate relatives or friends of the deceased. In *Burke vs N Y University*, 179 N Y Supp 626, an action for alleged unlawful dissection, a complaint is demurrable when it alleges that plaintiff "had left their address in order that they might learn if anything had happened to their father or of his death," but does not state with whom or where the address was left, thus placing upon plaintiff the duty of proving that the institution had knowledge of the existence of relatives. In *Newman vs Stewart*, 127 N Y Supp 866, it is only after a reasonable inquiry has been made for relatives, that consent of friends to autopsy will suffice. *Findley vs Atlantic Transportation Co*, 220 N Y 249, relates to the control of a dead body and action for damages for improper disposal at sea and awarded damages to plaintiff.

What constitutes a reasonable inquiry for relatives or friends under this section is largely a question of fact but, where it was not shown what, if any, effort was made to discover the relatives of a dead person, except that the name of a woman was entered as "friend" in the hospital records it was not a compliance with a statute permitting hospitals to deliver bodies for dissection or to hold a post-mortem (*Newman vs Stewart*, 127 N Y Supp 866).

Nowhere does existing law grant authority specifically at least to any official to perform an autopsy without consent in case of suspected infectious disease. Yet it does seem that this is a most important, and at times a vital thing to a community. The Health Department of any locality, concerned as it is with the prevention and spread of disease, should certainly be informed if there be present in the community, any obscure, unusual or unknown disease, liable to become epidemic in character, or if there be present any known infectious disease, that upon its discovery, steps may be taken to prevent its dissemination. And this information should not depend solely upon clinical sources, for autopsy will disclose before physical signs or symptoms occur, the presence of such disease, if thoroughly performed and its chemical, bacteriological and histological adjuncts properly utilized. Numerous deaths occur in the pre-explosive stage of epidemics which escape proper diagnosis, which if investigated by

autopsy would save communities many lives and more dollars.

Judge Roberts in a Maryland case well stated the situation when he said, "The spread of infections and contagious diseases is very apt to occur in a thickly settled community. It is therefore the part of wisdom to watch with vigilance every indication of their appearance, and to investigate the causes which might in any probability produce them. The cause of death must be ascertained, so that means may be adopted for the prevention of other deaths from the same source. The evidence before us exhibits the case of a public official whose duty it is to find out and certify the cause of a death which is brought to his notice" (*Young vs College of Physicians and Surgeons*, 81 Md 358 32 A M). A possible solution would be an enabling act to allow the Commissioner, or Board of Health to authorize an autopsy where the public health may be threatened.

(e) Laws, 1925 N Y chap 139. In effect July 1, 1925.

An act abolishing the office of Coroner in the County of Westchester and creating the office of County Medical Examiner and prescribing his powers and duties.

Sec 3. If upon such examination the said Medical Examiner is of the opinion that death was due to an unlawful act or criminal negligence, he shall at once notify the District Attorney and the police. He shall upon being authorized by the District Attorney of the County of Westchester make an autopsy.

To the record of such case shall be attached the original report of the Medical Examiner and the detailed findings of the autopsy and inquiry, if any.

The above constitute the special statutes to date, authorizing the performance of autopsies without consent. Wherever the powers of those special statutes are properly applied for investigation of crime or suspected crime or for scientific instruction or research, the courts have uniformly upheld them.

Autopsy is permissible under Section 2213, Penal Law, sub 2.

Whenever a coroner is authorized by law to hold an inquest upon a body, so far as such coroner authorizes dissection for the purpose of inquest, and no further.

The function of a coroner's inquest is to investigate the cause of death where there are reasonable grounds for suspicion that it has been occasioned by crime or violence (*Matter of Bandel vs Dept of Health* (1908), 193 N Y 133 85 NE 1067, *Peo vs Warner*, 104 N Y S 279), or when the coroner receives notice from proper authority as to a sudden death and where there is no medical certificate of death from natural cause or other ground upon which he can

The law does not grant any official unlimited power of autopsy, for such a power could be wielded in a community with disastrous results, but while the limits are sharply prescribed, within their jurisdiction public officials are supreme in the performance of autopsies and are immune from civil or criminal liability.

While it is generally understood by both laity and profession that consent is required for autopsy, both are more or less uninformed as to what conditions render it possible to autopsy without consent and this is quite noticeable in the profession.

The physician is prone to request autopsy for the mere satisfaction of scientific curiosity, and, that in cases which no law gives the right to anyone to perform autopsy without consent. The existence of a difference of opinion between doctors as to diagnosis, the physical effects of dosage, the advent of complication or intercurrent affections are grounds in their opinion to obtain an autopsy. Such is not the fact, and no matter how desirable it may be from a medical viewpoint to investigate such affairs, they do not, without more, fall within the scope of official exercise of power.

The Penal Law of the State of New York, in section 2213, provides that the right to dissect the dead body of a human being exists in the following cases:

Sub—I In the cases prescribed by special statutes

(a) Laws of New York, 1902 chap 577 (in effect April 14, 1902)

An act abolishing the office of Coroner of the County of Erie and creating the office of County Medical Examiner and prescribing its duties

Sec 7 When the Medical Examiner or said Deputy Medical Examiner has notice that there has been found, or is lying within the County of Erie, the dead body of a person who is supposed to have come to his death by violence, he shall forthwith repair to the place where such body lies, and take charge of the same and, upon being authorized in writing by the District Attorney of Erie County, or by a justice of the peace of the town in which such body lies, make an autopsy

(b) Laws of New York, 1915, ch 284, being chap xxii, Title 4 of the Greater New York Charter, comprising sections 1570 to 1571d (In effect January 1, 1918)

Violent and suspicious deaths Procedure

Section 1571 When, in the City of New York any person shall die from criminal violence, or by a casualty, or by suicide, or suddenly when in apparent health, or when unattended by a physician, or in prison, or in a suspicious or unusual manner, shall immediately notify the office of the Chief Medical Examiner,

Autopsies Findings

Section 1571a If the cause of death shall be established beyond a reasonable doubt the Medical Examiner in charge shall so report to his office. If, however, in the opinion of such Medical Examiner, an autopsy is necessary the same shall be performed by a medical examiner.

This law creates an office which supplants the Coroner's Office within the City of New York.

Since the creation of this office as far as the writer knows, but one attempt has been made to test the right of a medical examiner to autopsy without consent. In *Hagan vs Kennard*, plaintiff in suit for damages alleged that an unlawful autopsy was performed upon the body of her son in that such autopsy was performed without her sanction. Mr Justice Martin, Supreme Court, Bronx County Term, dismissed complaint, "No ground for action," as section 1571a constitutes a special statute under which autopsies may be performed without consent.

(c) Code of Criminal Procedure (N Y) L 1892, ch 16 Sec 507, in effect Feb 4, 1892

Death Penalty Who to be present

He (the Warden) shall permit no other person to be present at such execution except those designated in this section. Immediately after the execution a post-mortem examination of the body of the convict shall be made by the physicians present at the execution and their report in writing stating the nature of the examination so made by them shall be annexed to the certificate hereinafter mentioned and filed therein.

(d) Public Health Law Sec 316, sub 1, as amended by Laws of 1925 chap 369, in effect April 2, 1925

This sub-division of the law (too long to be quoted in full), should be consulted by those interested (*McKinney's Consolidated Laws of New York*). The portion of the section which is pertinent to this paper is in effect, that persons having lawful control and management of places where in dead bodies are placed, but not by relatives in the usual manner for burial or keeping, may deliver such bodies to lawfully authorized institutions of teaching, for dissection. But not if the next of kin, within forty-eight hours after death, notify such persons not to deliver the dead body or if the dead person shall have expressed a desire to be buried in the usual manner. Persons so claiming such dead body must prove by affidavit that he is a relative of the deceased and shall forfeit his right of claim if he refuses.

Sec 2 Added by Laws 1925 chap 369, in effect April 2, 1925

The person having lawful control and management of any hospital in which a patient has died may order the performance of an autopsy upon the corpse, unless objection is made to such autopsy by the next of kin within forty-eight hours after death. In case of unclaimed bodies the

The district attorney exhumes a dead body, with or without notice to relatives of the deceased, or any corporation having legal charge of such body by an order from any Justice of the Supreme Court or any County Judge of the county in which the body lies (Section 2215, Penal Law, N Y)

The coroner (acting in his official capacity) exhumes a buried body under section 71, subdivision 4 of the Membership Corporation Law by application to the County Court of the county or the Supreme Court at special term, held in the district. Notice of application for consent of the court must be given at least eight days prior thereto, personally, or at least sixteen days prior thereto by mail, to the corporation or to the person not consenting and to every other person to whom service of notice may be required by the court.

Much simpler in former times was exhumation by the coroner "If the body be buried when he comes, he must dig it up" (Rex vs Ferrond, 3 B and Ald 265)

The medical examiner's office exhumes a body without consent of next of kin by (a) referring the case to the district attorney, who proceeds under section 2215, Penal Law, or (b), by direct application to County or Supreme Court as section 71, sub 4, Membership Corporation Law, or, if consent be given by (c) Court order under above section.

The next of kin exhumes under section 71 (above) by court order.

Courts are loath to grant permission to remove or exhume a dead body and such permission should not be granted without the gravest reasons (In re Adams, 172 N Y Supp 612). If public justice demand it, in the greater interest of society, the application is granted but "a court of equity will not, at the instance of their children, decree them the right to remove her body and place it beside that of her husband" (In re Donn 14 N Y Supp 189, the leading case in America upon this subject Cited, 148 N Y Supp 286 153 N Y Supp 441 172 N Y Supp 613).

THE DIFFERENTIAL DIAGNOSIS OF PAIN IN THE RIGHT LOWER QUADRANT OF THE ABDOMEN *

By H A. BLAISDELL, M D,
JAMESTOWN N Y

Thirty years ago the great controversy at every medical convention was over the medical versus the surgical treatment of appendicitis. It has taken a generation to emphasize to the medical profession, the necessity of early diagnosis and early operation for this disease. Indeed, castor oil and enemas are still being given for those classical symptoms which denote appendicitis. It was inevitable that during this educational period thousands of innocent appendices should be sacrificed. Every experienced surgeon who is honest with himself knows that he has removed the appendix from many patients without relieving the pain upon which the diagnosis of appendicitis was chiefly based. Several years ago, Stanton of Schenectady, published a statistical study of appendectomies performed for the relief of chronic appendicitis. He showed that the cases not relieved were usually those in which the chief complaint was recurrent pain in the right side of the abdomen. *The appendix is usually innocent when pain in this region is unaccompanied by fever and digestive disturbances.* The literature is full of references to this fact and of attempts to classify the causes of pseudo-appendicitis. It is high time that we ceased to cloak our ignorance under the convenient mantles of "neurosis" and "adhesions."

The object of this paper is to emphasize the importance of what the writer believes to be the most common of all the causes of mistaken diagnosis of appendicitis. The more generally recognized errors are those involving the gall-bladder, the right tube and ovary, duodenal ulcer, acute pancreatitis, Meckel's diverticulitis, and luetic gastric crisis. After eliminating all these conditions we still have a large class of patients, usually young women whose right abdominal pain recurs after appendectomy. I believe that many of these remaining cases have been explained by Hunner in his classical studies of ureteral obstruction.

Mistakes are not often made in cases of acute appendicitis. Here the sequence of symptoms—epigastric pain followed by nausea, fever and tenderness in the appendix region—spells the correct diagnosis in most cases. It is the so-called chronic or sub-acute appendicitis with recurrent right abdominal pain as the chief or only symptom which should put us on our guard. In such cases, especially in the absence of gastric symptoms the appendix should not even be accused—still less found guilty, until we have definitely eliminated floating kidney, ureteral calculus, pyelitis and stricture or kink of the ureter. For this purpose we suggest the following routine:

1 Careful history with especial reference to gastric, urinary and menstrual symptoms

* Read before the Eighth District Branch at Buffalo October 7 1925

reasonably form an opinion as to the cause of death, it is his duty to hold an inquest (In re Hull 9 Q B D 689)

Acting under authority of law he may order a dissection of the dead body and may employ physicians for that purpose. And the physician who makes such a dissection is not liable to action for damages by the family of the deceased (Cook vs Walley, 1 Colo A 163 27 Pac 950 Hackett vs Hackett, 26 A 42 Hassard vs Lehane, 135 N Y S 711)

But the physician performing the autopsy who removes parts of the body without parent's consent, and throws them away, such parents may maintain an action against him (Palenzke vs Bluming, 98 Ill A 644), and even though authorized by a coroner to perform an autopsy he must not unduly disfigure the body (Young vs College Physicians and Surgeons, 32 Atl. 177) nor can he remove and retain parts of the body on the ground that the case was an interesting one, without consent of the family (Hassard vs Lehane, 128 N Y Supp 161), but he may, by direction of the coroner or district attorney retain them for evidence (Id., Matter of Wnuk, 200 App Div 731). A coroner cannot order an autopsy upon a dead body except as part of an inquest. He must summon a jury, view the corpse and render a verdict. Otherwise his act is that of an individual and is not an official act and those who act under his orders in such cases (as the physician), are liable for damages (Peo vs Fitzgerald, 43 Hun 35 reversed in 5 N Y Cr 335, not as to coroner's authority but other matters). In the latter opinion it was held that the autopsy may be performed before the jury is summoned. A hospital is liable for performing an autopsy upon a case which would naturally come under the coroner's jurisdiction, if such autopsy is unauthorized by the coroner (Darcy vs Presbyterian Hospital, 202 N Y 259 95 N E 695)

With the exception of those counties in New York State which have abolished the coroner's system, autopsies are performed by officials known as coroner's physicians. They are provided for by statute and when acting outside the scope of their authority are liable to the same action and penalty as any other physician.

Sub 3 Autopsy is permissible under Section 2213, Penal Law

Whenever and so far as the husband, wife or next of kin of deceased, being charged by law with the duty of burial, may authorize dissection for the purpose of ascertaining the cause of death and no further

The interesting case of Winkler vs Hawes, 102 N W 418, discloses that certain questions may arise in this connection

First, having received consent to autopsy but no expressed authority to remove any of the organs or any part of them, may he do so without

liability for damages? It seems that he can, upon the theory that consent to the autopsy implies consent to use all legitimate means to fulfill the purpose of the autopsy, namely, to determine the cause of death. Permission to autopsy implies consent to the performance of the act in the usual manner and if removal of some organ and its temporary retention for further study, is necessary, or if portions are removed for chemical or microscopical study, this being usual at autopsies, the person so doing is guilty of no wrong, provided permission to remove and use them was not expressly withheld at the time consent was given for the autopsy. Nevertheless a condition to consent that no part of the body should be taken away, did not necessarily prohibit the taking of a part to the office of the surgeon if it was duly returned and replaced for burial.

Second Though the autopsy be authorized to determine the cause of death and no further, may the physician not yet having found a cause for death, pursue the autopsy against the demand to close, until the purpose for which the autopsy was authorized, namely, the cause of death, be found

It seems that he cannot. The authority conferred is not an agency but a licence and may be revoked at any time and the physician must stop his autopsy when directed by the family whether he has ascertained the cause of death or not. His remedy is to refuse a certification as to cause of death or to venture any opinion whatever.

Sub 4 Autopsy is permissible under Section 2213, Penal Law

Whenever any district attorney in this State, in the discharge of his official duties, shall deem it necessary, may exhume, take possession of and remove the body of a dead person, or any portion thereof, and submit the same to a proper physical and chemical examination (Peo vs Fitzgerald, 105 N Y 152. Neuman vs Steward, 127 N Y Supp 866). This section was created by chap 500, Laws of N Y, 1889

The district attorney has the right to employ any physician he deems competent to dissect the body, which under this section he desires investigated. In New York City the physician employed is usually a medical examiner or a medical assistant attached to the district attorney's office.

The above constitute the sections of the law of New York relating to autopsies upon dead human bodies

After the dissection the remains must be properly restored (organs replaced, body sewed, cleansed, etc.), and then buried and cremated

In many cases it becomes necessary to exhume a body for autopsy when such is to be performed either by consent, or under special statute and it may be of interest to briefly cite the method of procedure and the source of authority upon which the exhumation depends

The district attorney exhumes a dead body, with or without notice to relatives of the deceased, or any corporation having legal charge of such body by an order from any Justice of the Supreme Court or any County Judge of the county in which the body lies (Section 2215, Penal Law, N Y)

The coroner (acting in his official capacity) exhumes a buried body under section 71, subdivision 4 of the Membership Corporation Law by application to the County Court of the county or the Supreme Court at special term, held in the district. Notice of application for consent of the court must be given at least eight days prior thereto, personally, or at least sixteen days prior thereto by mail, to the corporation or to the person not consenting and to every other person to whom service of notice may be required by the court.

Much simpler in former times was exhumation by the coroner. "If the body be buried when he comes, he must dig it up" (Rex vs Ferrond, 3 B and Ald 265)

The medical examiner's office exhumes a body without consent of next of kin by (a) referring the case to the district attorney, who proceeds under section 2215, Penal Law, or (b), by direct application to County or Supreme Court as section 71, sub 4, Membership Corporation Law, or, if consent be given by (c) Court order under above section.

The next of kin exhumes under section 71 (above) by court order.

Courts are loath to grant permission to remove or exhume a dead body and such permission should not be granted without the gravest reasons (In re Adams, 172 N Y Supp 612). If public justice demand it, in the greater interest of society, the application is granted but "a court of equity will not, at the instance of their children, decree them the right to remove her body and place it beside that of her husband" (In re Donn 14 N Y Supp 189, the leading case in America upon this subject. Cited, 148 N Y Supp 286 153 N Y Supp 441 172 N Y Supp 613).

THE DIFFERENTIAL DIAGNOSIS OF PAIN IN THE RIGHT LOWER QUADRANT OF THE ABDOMEN *

By H. A. BLAISDELL, M.D.,

JAMESTOWN N Y

Thirty years ago the great controversy at every medical convention was over the medical versus the surgical treatment of appendicitis. It has taken a generation to emphasize to the medical profession, the necessity of early diagnosis and early operation for this disease. Indeed, castor oil and enemas are still being given for those classical symptoms which denote appendicitis. It was inevitable that during this educational period thousands of innocent appendices should be sacrificed. Every experienced surgeon who is honest with himself knows that he has removed the appendix from many patients without relieving the pain upon which the diagnosis of appendicitis was chiefly based. Several years ago, Stanton of Schenectady, published a statistical study of appendectomies performed for the relief of chronic appendicitis. He showed that the cases not relieved were usually those in which the chief complaint was recurrent pain in the right side of the abdomen. *The appendix is usually innocent when pain in this region is unaccompanied by fever and digestive disturbances.* The literature is full of references to this fact and of attempts to classify the causes of pseudo-appendicitis. It is high time that we ceased to cloak our ignorance under the convenient mantles of "neurosis" and "adhesions."

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Mistakes are not often made in cases of acute appendicitis. Here the sequence of symptoms—epigastric pain followed by nausea, fever and tenderness in the appendix region—spells the correct diagnosis in most cases. It is the so-called chronic or sub-acute appendicitis with recurrent right abdominal pain as the chief or only symptom which should put us on our guard. In such cases, especially in the absence of gastric symptoms the appendix should not even be accused—still less found guilty, until we have definitely eliminated floating kidney, ureteral calculus, pyelitis and stricture or kink of the ureter. For this purpose we suggest the following routine:

1 Careful history with especial reference to gastric, urinary and menstrual symptoms

* Read before the Eighth District Branch at Buffalo October 7 1925

2 General physical examination, and here it should be emphasized that not all cases of ureteral obstruction are followed by hydronephrosis as one would suspect, but on the contrary, as in cases of gall-bladder obstruction, the organ above is atrophic and smaller than normal

3 Urinalysis—wet and stained smears of catheterized or sterile, centrifuged specimens (A sterile sample can be obtained from the male by catching the last portion of urine voided. The same technique can be followed with the female by cleansing the vulva and meatus and catching the last portion of voided specimen by holding a sterile test tube over the meatus.) All specimens to be accurate should be examined immediately. One contaminating bacterium soon produces many in the warm urine

4 Any finding, by the foregoing examination, which points toward the urinary tract, should indicate complete cystoscopic examination, *i. e.*, ureteral catheterization, functional test and pyelogram

Hunner's work, with especial reference to ureteral stricture, which dates back to 1912, has been received with divided enthusiasm by the profession at large. Even urologists are not agreed as to the importance of the entity which he has pointed out. We do know this—that many cases who have been operated upon once or many times for recurrent symptoms—get permanent relief from dilatation of the ureters. Two recent cases will serve as illustrations—case No. 1 who escaped operation as a result of proper investigation is as follows

Case W D Male, age 47 Occupation, loomsetter

Began 13 months ago with sudden, severe cramp like pain in right flank and abdomen with throbbing in penis and right thigh, followed by transient hematuria at intervals since. No burning urination but occasional tenesmus—voiding 12 times per day, but not at night. Had been advised numerous times to have operation and had lived through 60 chiropractic treatments without benefit. X-rays repeatedly negative

His physical examination was negative except for some tenderness in right flank and upper

abdomen. Right epididymis also somewhat enlarged and tender

Urine—Occ hyaline casts and white blood cells present

Cystoscoped, and No. 6 catheter passed to right kidney on January 11th—repeated on February 22d, with No. 6 to both kidneys, and he has been absolutely free from all symptoms since.

Case No. 2 having undergone appendectomy because of lack of preliminary study

Case II I B Female, age 18, was operated upon by another surgeon for pain in right abdomen three years ago without relief. She first came to us two years ago with pain and tenderness in right lower quadrant extending up to flank, and with vaginal discharge. An abdominal exploration was not desired, so vagina was treated locally and patient drifted away until last March, seven months ago, when she came in still complaining of pain in lower right quadrant—she had also had 40 chiropractic treatments. At this time diplococci were found in her urine and she gave history of scanty urine, at times not voiding for 24 hours. The diagnosis of chronic recurrent pyelitis with ureteral stricture was made and cystoscopy performed. The same organism found in right kidney as found in urine. A stricture below pelvis was dilated up to number 6 with relief for a while, and then the pain recurred. After five dilatations both ureters were stretched up to number 13 F and symptoms disappeared

SUMMARY

1 Many cases are still being operated upon for appendicitis which are not permanently relieved

2 Pain in the right lower quadrant, when not accompanied by gastric symptoms or fever points to pathology of the urinary tract as often as to the appendix

3 Any sign or symptom after careful study pointing to the urinary tract is an indication for a complete urological survey

4 Many cases whose symptoms have returned following operation have received permanent relief by dilatation of the ureters



EDITORIALS



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THE PRACTICE OF MEDICINE ACT

The Practice of Medicine Act passed the Senate on Wednesday, April 21st, by a vote of 35 to 12. It had already passed the Assembly by a vote of 95 to 33, and it now awaits the Governor's signature.

The legislators have given serious consideration to the appeals from laymen that all who would practice the healing art should give satisfactory evidence of scientific knowledge to the Department of Education.

The revelations of the State Charities Aid Association regarding the unreliability of the evidence of the upholders of cults doubtless

influenced the legislators to decide to support the Act.

Physicians of New York State have been a unit regarding the principle of a uniform educational qualification for all who would treat cases of sickness, their differences of opinion have been over the means of maintaining that standard. Since the Legislature has decided on a method for the control of the practice of medicine, physicians will wish to aid the cause of public health by helping to carry out the provisions of the Act.

THE PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION

Physicians of New York State are honored by the elevation of one of their number to the presidency of the National organization of physicians, the American Medical Association, after a quarter century of service in the medical societies of his County and State, and later as Chairman of the Board of Trustees of the National Society. He brings to the office a mature judgment based on wide experience, and above all an inherited adaptability for the work of the office.

Dr Wendell C Phillips is descended from an early line of ministers of the Gospel who were preachers because they understood men and the mainsprings of human action and conduct. The pioneer bands of colonists who established the New England States were led by brainy preachers who could direct farming, and commerce, and politics, and fighting as efficiently as they could exhort and interpret with persuasive logic and power, and their characteristics appear in their medical representative of the present generation in whom the spirit of service to his brother physicians and the public is inborn.

Dr Phillips excels in his understanding of physicians and the trend of medical practice. His is a constructive mind. He is a prophet who discerns the signs of the times through his knowledge of the past and the present. His inaugural address is a vision of what medical practice will be in the near future. Its ideals embody the natural aspiration of every physician, and their realization is coming sooner than is apparent to those who look only on the hard and selfish side of human nature.

A review of the President's address appears on page 375 of this issue, but golden texts chosen from its wealth of ideas and expression are worthy of note.

"The maintenance of individual practice in the person of the general practitioner or family doctor is of the utmost importance for the survival and continuation of the family home as the foundation of the Nation.

"The confusion of the present (methods of practice) need never become the chaos of the future, provided the medical profession prepares to meet the demands of the patients of the future.

"Professional policies, narrowly conceived, can never successfully oppose the rightful interests of the public.

"The medical profession is well able to supply the brains for any and all nation-wide efforts for individual and community health education that the great business publications and the advertising world will undertake to promulgate and finance.

"Today every licensed physician is being urged to prepare himself to teach his own patients the

principles of health. The field of public health education must be invaded by the physician.

"Knowledge of the great principles of the preservation of health and of the great historical proof of preventive medicine, will lead legislators and others in responsibility to protect every community against the blandishments of uncensored quackery, the enmity of anti-medical propagandists, and the evils of nostrum medication.

"The proposed campaign of public health education will surely create a demand for new contacts between patient and physician.



Wendell C Phillips, M.D., President American Medical Association, 1926-1927

"Physicians must give a new significance to the word patient, for in the new order of things both sick and well people must and will be recorded in the lists of their doctors.

"There must be less of the machine or mechanical physician, and more of the individual.

"The physician of the future must prepare himself educationally, morally, psychologically, and sociologically to make the intimate personal contact with his individual patient so effective, outstanding, and unassailable that no other form of medical practice will be permitted by the layman himself.

"The future health needs of the public can best be supplied by a more humane, painstaking, better qualified practitioner of medicine

"The family doctor should remain the foundation of medical service. His outlook, functions and training need modification to meet changing needs

"The family physician must educate his patients and community in preventive medicine, and be to some extent a health administrator. His chief role of service will be to keep his patients well

"The superman will never materialize without superhealth

"The practice of medicine is in no wise a business

"The service rendered by a physician may not be considered in terms of finance, but in no sense should our physician of the future offer this as an excuse for slothfulness in the management of his business affairs. Every detail of his newer service in the prevention of disease is of great value to his patient. Health education and conservations are services of value even greater to the patient than the sums paid for helping the body to repair the ravages of disease

"Not less of science, but more of the art of the practice of medicine is the need of the hour. The doctor must think more in terms of life, health, and humanity than of disease and death

"The undergraduate student must be trained to treat the body from the standpoint of health as well as that of disease

"The medical education of the present places too much emphasis on the material and too little on the spiritual phases of medical practice. The student of medicine must be taught how to care

for and advise the man as well as the patient

"In addition to his educational qualifications, both academic and medical, the family physician must be a man of character. His daily life must be a practical expression of honesty, morality, and resourcefulness in service to his patients. He will have a due consideration of his own health and responsibilities, and at proper periods will play, as he works, with well-directed energy, giving and asking half the road and fair play

"Any claim for a limited medical knowledge (for a rural doctor) is fallacious in reasoning and untenable, for the reason that the best in medical care is none too good for our inhabitants, no matter where they reside

"Our proposed plan of extensive public health education should lead the enlightened laity to meet the demand for hospitals

"Every physician should be in contact with hospital facilities and experience—his progress in his profession depends on it

"Public health education should be promulgated by health departments and agencies, by lectures, radio, and film, but it will never reach its highest efficiency until it includes a maximum of direct personal instruction by properly qualified family physicians

"Health education will lead the patient of the future to seek the continued advice and counsel of his personal physician. Cults and other menaces to public health will gradually disappear before the rising sun of enlightened public opinion

"The family physician of the future must have proportionate representation in the councils of his profession. No specialty or combination of specialties, not even general surgery, should be permitted to dominate the health affairs of a community or of a nation"

PRECEPTS FOR MEDICAL STUDENTS

Thoughtful educators feel that the education of a medical student is incomplete unless he is well grounded in the art as well as the science of the practice of medicine

A student may be impressed when he sees a case demonstrated brilliantly before a class, but the learner would also like to know what the patient feels about the professor. A general practitioner called to see a patient for the first time has two ideas vividly before his mind, first, what disease affects the patient, second, what the patient and his family thinks of the doctor, or it may well be that the order of the doctor's thoughts is reversed and he thinks of the patient first and the disease secondly

Dr Wendell C Phillips, President of the American Medical Association, in his inaugural address, emphasized this point when he said, "The thinking of the medical man of the future will be less along the line of the mechanical and

the technique of the laboratory, and more of the humanist"

Medical students of today seldom or ever see patients in their own homes, or meet patients as their servants. A general practitioner serves his patient in the best sense of the word. His attitude is in contrast to that of the authority and command assumed in the teaching clinic. He is called by a patient for the purpose of relieving discomfort—usually physical and always mental also. His principal problem is to satisfy the patient both immediately and in the future. Science alone will never satisfy the patient. There must also be the friendly touch

How shall a medical student learn to think in terms of human interest and sympathy? The best way is by observing how the experienced practitioner meets his patients, talks to them, examines them and comforts them. This

means a revival of the former preceptor system

How the medical school of the University of California has tested this plan is told on page 408 of this issue. The question arises, Can this system be extended to all medical students?

There are 18,000 medical students in the United States. To supply each one with a preceptor would require the services of ten

per cent of the practitioners of the nation. Since 4,500 medical students graduate each year, that number of medical men would be required to act as preceptors if each student spent a month of intensive preceptor work in his course.

If the preceptor system is of great value, the physicians of the country will find a way to make it available to the medical student.

THROWING SAND IN THE PEOPLE'S EYES

When will the people realize the altruistic purpose of physicians in promoting a practice of medicine act?

They will probably continue to believe the get-well-quick fakers as long as they believe the get-rich-quick talkers, and they will ascribe selfish motives to doctors just so long as they call the directors of Savings Banks selfish.

A four-page pamphlet attacking the doctors, that has been widely distributed from the news-stands, reads like a soap-box orator's attack on bank presidents. The keynote of the attack is this quotation:

"If the medical trust is allowed to continue its law-making progress, practically every right possessed by the citizens of this country in connection with the physical care of the body will be taken from them."

No bill that was ever sponsored by physicians ever interfered with the inalienable right of any American citizen to seek healing and comfort

from whatever source of healing he chooses.

No bill was ever passed that forbade any man from investing his savings in wild-cat oil stock or other get-rich-quick scheme, and no man was ever arrested for investing his own money in such a scheme. But many a man has been justly arrested and punished for holding himself out as being able to produce enormous dividends for gullible investors.

No man can ever be arrested for confiding his health and life with any one—doctor or faker—he may choose. Doctors wish to prevent unqualified persons from holding themselves out as being able to produce dividends of health by means of their fake stocks of ignorant manipulations.

The proposed Practice of Medicine law would classify get-well-quick promoters with get-rich-quick fakers.

Those who conjure up the ogre of loss of personal independence are merely throwing sand in the eyes of the people.

COOPERATION OR PARTICIPATION

The word "cooperation" is used so frequently in discussions of public health work that its meaning has become almost trite and formal. It is derived from two Latin words, *co*, together, and *operari*, to work. As applied to physicians in public health work, the word implies that they, and departments of health, and lay organizations shall work together for health promotion.

Cooperation implies an equality of the workers in all phases of the cooperative field of public health. The word may even imply a dominance of one group of workers over another when one group discovers something that another should do, and forthwith seeks to dominate the second worker. Cooperation in the anti-tuberculosis movement, for example, requires team work between three groups—physicians, boards of health and lay organizations. Cooperation implies the ready response of physicians to medical needs pointed out by boards of health and lay organizations, and often in addition it implies a demand that the physician group shall cooperate in a way that is dictated by the two other groups. There

is thus a tendency toward the development of two opposing meanings of the word "cooperate." This change of meaning is nothing new or strange in the development of the language. The word "slave" is Russian, and formerly meant a free man. But when the mass of the people became vassals to the overlords, the word took on its present meaning of servitude.

The word "participation" more exactly expresses the physician's point of view of harmony of action among the trinity of workers in public health. It comes from two Latin terms, *pars*—part, and *capere*—to take,—therefore, to take part. Physicians are ready to take their part in any phase of public health work. Their peculiar field is technical work for which they alone are qualified, both legally and scientifically. Their relation to other groups in anti-tuberculosis movements, anti-diphtheria campaigns, and similar activities is expressed by the word "participation" more happily than by the word "cooperation."

EVERY DOCTOR A HEALTH TEACHER

That meeting of a medical society is successful from which the doctors carry away some constructive thought that recurs to mind again and again. Dr George E Vincent voiced such a striking thought when he addressed the 1925 meeting of the Medical Society of the State of New York on "The Doctor of the Future," and described him as "Every Doctor a Health Officer." Doctor Wendel C Phillips amplified the same thought this year in his inaugural address as President of the American Medical Association when he spoke on the subject, "The Physician and the Patient of the Future," and developed the idea of "Every Doctor a Health Teacher."

Both speakers emphasized the civic duties of the doctor, and warned the physicians that their scepter of dominion in the field of the practice of preventive medicine will surely pass from them unless they assumed the duties of diagnosing threatening ills which are yet afar off.

Departments of health and lay organizations have attempted to do the preventive health work which physicians have neglected, but every official body and organization has fallen short in the execution of its plans because it could not go into the medical market and buy sympathetic medical service. The spirit of medical practice cannot be bought and delivered in an impersonal

way, its only perennial source is the practising physician who is the friend and confident, comforter and priest, to every person of his families. To them the doctor is indeed the health officer and the teacher.

Physicians are beginning to practice preventive and educational medicine through their medical societies. Many phases of the newer practice can be done only by the societies by means of a few leaders and spokesmen, but the ideal set forth by both Dr Vincent and Dr Phillips is that every doctor shall feel a personal responsibility for prevention and education among his own patients. This ideal is rapidly becoming an actuality.

There is a distinct field for each of the three bodies of public health workers—official departments of health, unofficial lay organizations, and the great group of family doctors. The recognition and demarkation of those fields was the outstanding result of the last meeting of the Medical Society of the State of New York.

It is gratifying that the heads of a worldwide lay health organization and of the national body of physicians recognize the essential rôle of the family physician in public health. Physicians will respond to the call that is pointed out to them.

LOOKING BACKWARD—THIS JOURNAL TWENTY-FIVE YEARS AGO

The New York State Journal of Medicine for May, 1901, page 87, carries an announcement of Volume III of the Medical Director the issue for 1901, which says

"The Committee on Publication of the State Association has decided this year to make a new departure in compiling the list of physicians for Volume III of the Medical Directory of New York, New Jersey and Connecticut, soon to be published. The list will include the names of all legally registered physicians of these States as far as they can be obtained, without regard to their school of practice. The reason for this action on the part of the committee is as follows. One of the objects for the existence of the association is to help to enforce the medical laws of the State, not the least part of which duty should consist in the prosecution of illegal practitioners, therefore it is important that the officers and members of the component county associations should have a list at hand which

will give the necessary information as to who are and who are not legal practitioners, in order that the violators of the medical practice acts can be readily located for the purpose of prosecution. The recent decision of the Supreme Court of New York, sustained by the Appellant Division of the same court on appeal, determined the right of these associations to prosecute illegal practitioners and to receive the fines resulting from such prosecutions. Under ordinary circumstances these can be undertaken by the county associations with little or no expense. Officers of county associations should note this fact."

This announcement is of special interest because the Publication Committee evidently expected that prosecutions of illegal practitioners would follow the publication of a list of practitioners. But the prosecutions have failed to materialize, for doctors have not wished to act as detectives, and the lists have never been 100 per cent perfect.

means a revival of the former preceptor system. How the medical school of the University of California has tested this plan is told on page 408 of this issue. The question arises, Can this system be extended to all medical students?

There are 18,000 medical students in the United States. To supply each one with a preceptor would require the services of ten

per cent of the practitioners of the nation. Since 4,500 medical students graduate each year, that number of medical men would be required to act as preceptors if each student spent a month of intensive preceptor work in his course.

If the preceptor system is of great value, the physicians of the country will find a way to make it available to the medical student.

THROWING SAND IN THE PEOPLE'S EYES

When will the people realize the altruistic purpose of physicians in promoting a practice of medicine act?

They will probably continue to believe the get-well-quick fakers as long as they believe the get-rich-quick talkers, and they will ascribe selfish motives to doctors just so long as they call the directors of Savings Banks selfish.

A four-page pamphlet attacking the doctors, that has been widely distributed from the news-stands, reads like a soap-box orator's attack on bank presidents. The keynote of the attack is this quotation:

"If the medical trust is allowed to continue its law-making progress, practically every right possessed by the citizens of this country in connection with the physical care of the body will be taken from them."

No bill that was ever sponsored by physicians ever interfered with the inalienable right of any American citizen to seek healing and comfort

from whatever source of healing he chooses.

No bill was ever passed that forbade any man from investing his savings in wild-cat oil stock or other get-rich-quick scheme, and no man was ever arrested for investing his own money in such a scheme. But many a man has been justly arrested and punished for holding himself out as being able to produce enormous dividends for gullible investors.

No man can ever be arrested for confiding his health and life with any one—doctor or faker—he may choose. Doctors wish to prevent unqualified persons from holding themselves out as being able to produce dividends of health by means of their fake stocks of ignorant manipulations.

The proposed Practice of Medicine law would classify get-well-quick promoters with get-rich-quick fakers.

Those who conjure up the ogre of loss of personal independence are merely throwing sand in the eyes of the people.

COOPERATION OR PARTICIPATION

The word "cooperation" is used so frequently in discussions of public health work that its meaning has become almost trite and formal. It is derived from two Latin words, *co*, together, and *operari*, to work. As applied to physicians in public health work, the word implies that they, and departments of health, and lay organizations shall work together for health promotion.

Cooperation implies an equality of the workers in all phases of the cooperative field of public health. The word may even imply a dominance of one group of workers over another when one group discovers something that another should do, and forthwith seeks to dominate the second worker. Cooperation in the anti-tuberculosis movement, for example, requires team work between three groups—physicians, boards of health and lay organizations. Cooperation implies the ready response of physicians to medical needs pointed out by boards of health and lay organizations, and often in addition it implies a demand that the physician group shall cooperate in a way that is dictated by the two other groups. There

is thus a tendency toward the development of two opposing meanings of the word "cooperate." This change of meaning is nothing new or strange in the development of the language. The word "slave" is Russian, and formerly meant a free man. But when the mass of the people became vassals to the overlords, the word took on its present meaning of servitude.

The word "participation" more exactly expresses the physician's point of view of harmony of action among the trinity of workers in public health. It comes from two Latin terms, *pars*—part, and *capere*—to take,—therefore, to take part. Physicians are ready to take their part in any phase of public health work. Their peculiar field is technical work for which they alone are qualified, both legally and scientifically. Their relation to other groups in anti-tuberculosis movements, anti-diphtheria campaigns, and similar activities is expressed by the word "participation" more happily than by the word "cooperation."

iodine treatment which may act injuriously from the start. Iodine is and remains, for these reasons, a two edged sword in the conservative treatment of hyperthyreoses (Th Kocher). Attempts at conservative treatment should be made only under exact control of the basal metabolism, for the pulse and weight alone do not give us satisfactory information as to the course of the malady. The author gives an exhaustive bibliography on the subject of the iodine treatment of exophthalmic goitre and quotes very freely from American authors, as Cattel, Sturgis, Mason, Starr, Read, Jackson, Plummer, Boothby, Segall, Walcott, Means, Porter, Richardson and others.

The Treatment of Celiac Disease—This affection, variously known as intestinal infantilism of Herter, pancreatic insufficiency, acholia, and severe chronic indigestion, is defined by Philip S. Potter (*Archives of Pediatrics*, February, 1926, vol. 2) as a vice of nutrition without serious pathological changes, occurring in artificially fed children of early age, characterized by the inability to utilize properly the fats and carbohydrates, by arrested growth, distended abdomen, attacks of recurrent diarrhea with large, ill-smelling, pale, loose, porridgy stools. Before assuming the care of these children it is absolutely necessary to obtain the full cooperation of the parents in all respects and to have them understand that successful treatment is a long tedious process. All clinicians emphasize the need of a high protein diet, a low carbohydrate and a low fat diet, but one containing two or three times as many calories as the normal child needs. During the first stage the diet consists of protein milk alone. Lactic acid milk has an advantage over protein milk in that it has been found that with protein milk the stools remain foul, which is not the case with lactic acid milk, moreover, relapses are more frequent with protein milk. Marriott recommends a quart of skimmed lactic acid milk to which has been added the unwashed curds of two or three quarts of skimmed milk and 7% corn syrup. If there is pronounced emaciation, persistent diarrhea reduced turgor, or signs of tetany, a quart of sterile Ringer's solution may be used in place of the plain water in the preparation of the food, or four or more ounces sweetened with saccharin may be given twice daily for several weeks. In the second stage protein milk feeding is supplemented with curds of buttermilk, skimmed milk, scraped lean beef, white meat of chicken, casein biscuits, tongue, and eggs, the quantity being increased gradually. As auxiliaries, cod liver oil, orange juice, powdered spinach, one to three teaspoonfuls, and syrup of iodide of iron are gradually included. The casein biscuits are made from a starch-free diabetic flour

(15 level tablespoonfuls), egg (1), bacon fat (2 level tablespoonfuls), and water (3 tablespoonfuls). Of these the average child can take five or six a day. In the third stage, carbohydrates are added, between 60 and 65 calories per pound weight, at first dextrinized flours, zwieback, and toasted white bread are added cautiously, but never during the first six weeks of treatment. To overcome the limitation in the use of carbohydrates the pulp of very ripe bananas may be used, the amount being gradually increased to four to eight per day. The day of drugs for the most part is doubtful. Bile salts in the form of sodium taurocholate and glycocholate, one grain each, may be given for the stimulation of bile secretion and the encouragement of fat splitting. Bismuth and soda and aromatic chalk powder may be given for looseness of the stools. Iron is used for the anemia. Intestinal disinfectants are probably not needed when lactic acid milk is used.

Yeast in the Treatment and Prevention of Pellagra—Cosette Faust-Newton, writing in the *Southern Medical Journal* for March, 1926 (xix, 3), adduces evidence, gathered over more than a hundred years, which plainly and unmistakably points to the dietary factor as being the most essential one in the treatment of pellagra. He believes that the evidence points directly to a lack of either vitamin B or an unknown vitamin (Goldberger's P P), or possibly both, as the primary etiological cause of the disease. The diet of pellagrins is almost always lacking in vitamin B, whereas other inadequate factors vary. The tissue changes in pellagra are similar to those of other acknowledged avitaminoses (beriberi, scurvy, Barlow's disease, etc.). Striking success is reported when yeast vitamin B treatment is instituted, as advocated by Goldberger, whose so-called P P (pellagra-preventive factor) seems to be present only in association with water-soluble B. Goldberger gave from 15 to 30 grams (one-half to one ounce), or roughly, two level teaspoonfuls, three to six times a day, using a commercial preparation of dried brewer's yeast, and he supplemented this with a varied diet. The beneficial effects of this treatment have repeatedly been recognized as early as the end of the second or third day after the beginning of the treatment. Dr. Pratt Cheek, of Gamville, Georgia, has used about one hundred pounds of the preparation employed by Goldberger in the last six months and the results, he says, have been highly satisfactory. The effect is noticeable within ten days. The results obtained by those who have used this treatment, the author holds, fully justify Goldberger's claim that brewer's yeast is a specific for pellagra, and he believes it should be generally recognized as such.



MEDICAL PROGRESS



Excretion of Alcohol in the Urine as a Guide to Alcoholic Intoxication—H W Southgate and Godfrey Carter (*British Medical Journal*, March 13, 1926, 1, 3402) give evidence proving the inadequacy of present-day methods of estimating alcoholic intoxication, particularly that of the motorist, who, while showing no signs of gross intoxication, may yet be unfit through alcohol to be in charge of a car. They show that there is a direct relationship between the alcohol consumed and the alcohol in the blood when the alcohol is taken by the same individual under the same conditions. After drinking 144 cc of whisky containing alcohol in a dilution of 20 per cent, the mean ratio of alcohol in the urine to alcohol in the blood one hour after drinking the alcohol is 1.35. This figure is fairly constant. If two solutions, say of 5 and 20 per cent strength are drunk, the alcohol concentration will rise more rapidly and to a higher point in the case of the stronger solution. For instance, after 1,920 cc of beer containing 5 per cent alcohol, 1,200 cc of an 8 per cent aqueous solution of alcohol, and 235 cc of whisky diluted with an equal volume of soda water, thus forming a 20 per cent solution (96 cc alcohol being taken in each instance) the maximum alcohol concentration in the blood rose with increasing concentration of the alcohol drunk. It was also found that diminishing the rate of drinking delayed the accumulation of alcohol in the blood. For instance, drinking beer of 5 per cent strength to bring about real intoxication in any case must be a slow process, because of the large volume that must be imbibed to supply the necessary amount of alcohol. The amount of alcohol in beer that will take a normal man two hours to drink will be drunk in five minutes in the form of whisky. Thus the maximum point of concentration will be lowered when the more dilute beverage is drunk. All food tends to depress the rate of absorption of alcohol from the stomach and intestines and thereby lower the alcoholic concentration of the blood, but some have such a potent action in depressing blood alcohol as to be almost specific. Among these foods bread and milk stand out preëminently. Roughly, the bigger the man the lower will be the concentration of alcohol in the blood produced by a definite amount of alcohol when all other conditions are constant, but this does not seem always to be true. In forensic cases it is obviously not practicable to take a blood specimen and is unnecessary, since the concentration of the alcohol in the urine is proportional to that of the blood, and a fairly constant ratio holds which makes it possible to

deduce one ratio from the other. The problem is to estimate the blood alcohol concentration at the time of arrest. The time of arrest is always noted by the officer. On arrival at the police station the defendant is requested to empty his bladder completely. This specimen gives only the mean alcohol over a previous period of unknown duration, but even this figure is of value. The important sample is the next one, taken, for example at the end of fifteen minutes. This sample will give the mean concentration for the interval or the actual concentration at seven minutes from the time when the bladder was evacuated. If the figure 1.35 be taken as the ratio of urine alcohol to blood alcohol, the blood alcohol at this seven minute interval can be calculated. Knowing this figure and the time interval between the arrest and the emptying of the bladder, the blood alcohol at the time of arrest is calculated from the fact that alcohol concentration in the blood falls at the rate of about 12 mg per hour per 100 grams of blood. It is possible by this means to obtain a close approximation of the blood alcohol concentration of a person at the time of arrest, and therefore of the degree of alcoholic intoxication.

The Iodine Treatment of Hyperthyroidism.—Merke of the surgical clinic of Basle University sums up an exhaustive article in the *Schweizerische medizinische Wochenschrift* of January 30, 1926, on this subject as follows. In the majority of cases Lugol's solution exerts a striking initial action on the hyperthyroidism, affecting favorably the nervous and gastroenteric symptoms, the pulse, and the basal metabolism. The good results which the author terms the "iodine remission," do not depend to any marked extent on the size of the dose. The optimum of improvement is reached after about 8 days of iodine treatment but this favorable action is only transitory and after suspension of the remedy the patient becomes notably worse. A short and intensive treatment with iodine is a very valuable auxiliary for the operative treatment of the hyperthyroidism and in the iodine remission the operative risk is lessened and the plan of the intervention can be abbreviated. If the hyperthyroid patient has received iodine, then within a short time the amount of thyroid tissue can be reduced by operation but further remissions are not to be expected and the more thyroid tissue is left behind the more strongly the symptoms of Graves' disease reappear when the iodine treatment is interrupted. In rare cases of hyperthyroidism we miss the good initial effects of the

ected with one pole of the high frequency machine, the other pole being connected with the autocondensation chair in which the patient sits, enough current is used to cause profuse perspiration at the end of 20 minutes. Finally the blue pencil static brush discharge is used on the affected joint for 20 minutes. In bursitis diathermy is used directly through the bursa, 500 to 800 ma, three times a week. Indirect diathermy is a very safe method and is capable of causing absorption of calcareous deposits and of curing severe and chronic cases in three months. The Committee regrets the prominence given to other types of electrotherapeutic apparatus which has caused neglect of the static machine. There is no other apparatus which can approach the static machine in its power to remove infiltration, induration, and muscle spasm, and to improve circulation and deep tissue massage in and about diseased joints.

Congenital Dislocation of the Hip—After discussing the creditable theories of pathogenesis of congenital dislocation of the hip, Vittorio Putti (*Surgery, Gynecology and Obstetrics*, April, 1926, xlii, 4) emphasizes the importance of recognizing the dislocation as early as possible, even before the child has begun to walk. It is necessary therefore to appreciate symptoms that are not generally known or to which no importance is given. These symptoms are summarized thus. If the dislocation is unilateral, the cutaneous creases of the thigh, so evident in the infant, are no longer symmetrical. On the dislocated side they are proximally displaced, the inguinal and gluteal plates are deeper and longer than on the normal side. The outline of the dislocated hip is more prominent. The luxated hip has a tendency toward external dislocation. Abduction is slightly diminished. Shortening is nearly always minimal, but appreciable to the skilled eye. If the dislocation is bilateral, the pelvis appears enlarged because of the projection of the trochanters, the buttocks are flattened and the limbs cannot be normally abducted. Putti is absolutely convinced that early operation will bring a decided improvement in results. In the treatment of dislocation, he follows the classical method of Paci. For immobilization he follows in a general way the methods of Lorenz. Differing from what is commonly done in America, he divides the immobilization period into two stages. In the first stage the limb is held in the classical first position of Lorenz for three months, during the second stage, lasting from two to three months, the limb is immobilized in a minor degree of right angle abduction and in internal rotation. The open method should be used only in those cases in which the reduction cannot be ob-

tained by the ordinary method, and this occurs in about 5 per cent of the cases. If symptoms of traumatic arthritis appear before the fifteenth year, open operation is indicated. In four cases Putti has performed a real arthroplasty of the hip, modeling in a suitable manner the femoral epiphysis, deepening with an electric drill the cotyloid cavity, and interposing a flap of fascia lata. Among the palliative methods which can suitably be employed is the so-called bifurcation operation of Lorenz, namely an intervention which places the stump of the diaphysis instead of the femoral head in the acetabular cavity. On a basis of 1,879 cases with 2,556 reductions, Putti claims success in 90 per cent of single dislocations and improvement in 65 per cent of bilateral cases.

Paroxysmal Excitability of the Vagosympathetic—Mauriac and Husson, after relating briefly cases of the syndrome in question, sum up the symptomatology as follows (*Le Bulletin Medical*, March 17 and 20, 1926). The patients are usually nervous, dyspeptic, air swallowers, with hepatic insufficiency, enterocolitis, etc. Usually after eating, but at times following nervous excitement, there is a lively flushing of the face and neck with a sensation of heat and turgor, as if the blood-vessels would burst, and of palpitation of the heart. The patient feels ill and is made worse by the notice of those about him. But although he fears a stroke of apoplexy his blood pressure will be found to be normal and even at times subnormal. These crises last an hour or two and there may be several a week and even one daily, but the tendency is for the attacks to subside spontaneously after a short term. In some cases in which the patient develops sitophobia, dreading to eat lest he brings on the spells, he naturally becomes emaciated and weak, with an irritable heart. Search into the literature, limited to French authorities, appears to show that in prescientific days such attacks were common under the name of the vapors or hypochondria, but later the syndrome drops out of sight. Recently it has been described under various names and the authors give Ramond credit for recognition of the essential features in 1918. Others have described "vasomotor crises," "sympathetic syndrome," etc., although without emphasis on the paroxysmal character remarked by Ramond. The diagnosis is easy, for it is only necessary to exclude the mild form of polycythemia, erythrophobia, and a few other unrelated conditions. The authors can only indulge in speculations as to the nature of this syndrome. Treatment is uncertain, for while atropine seems indicated and often relieves there are other cases in which it fails.

Apparent Operative Cures of Cancer of the Stomach—Brodnitz has done but few operations, 21 only, for cancer of the stomach during a long period of years—evidently more than twenty-five. In all cases he used a Billroth II operation, spending only such time in removing lymphnodes as would not much prolong the operation. There was a high operative mortality, five patients succumbing soon after operation—over 25 per cent. Twelve patients died of recurrence all within two years. But four patients still live, apparently free from recurrence, 6, 16, 18 and 25 years after intervention. His percentage of apparent cures, not merely of 3 or 5 years survivors, is about 19. He is, of course, quite unable to explain why the 4 survivors did not share the fate of the 12 with early recurrence. Of diagnosis there could be no question, for every one of the 16 who survived the operation was under able microscopic control. We know through the investigations of Petersen and others that in certain cases cancer cells remain dormant in the lymphatics. Usually these sooner or later become activated, possibly not until many years have gone by, and then we have the delayed recurrence which is so depressing to the prospect of ultimate cures. Hence, it is conceivable that in a few cases the activation does not occur and the patient dies with his cancer still latent. He may be compared to a lawbreaker with suspended sentence. Brodnitz places all of his patients on arsenic, iron, and quinine after operation but does not express any belief in the prophylactic power of these drugs.—*Muenchener medizinische Wochenschrift*, January 22, 1926.

Pylorospasm in the Adult—In the course of an article on pylorospasm in general, limited largely to this affection in the infant, Professor Heile of Wiesbaden makes some statements concerning the same condition in the adult (*Klinische Wochenschrift*, January 29, 1926). Not very much is actually known of it but there are apparently at least two types which are quite distinct. In general, the affection is much less violent, much less acute, in the adult than in the infant. There is the ordinary symptomatic or reflex types as seen especially in gastric ulcer and cholecystitis. The other type may be termed primary, possibly a persistence of an infantile condition. This again is subdivided into forms with a distinct pyloric tumor and a purely functional type, corresponding to the same subdivision in the infant. The author speaks of what he terms latent tumor of the pylorus in which despite the presence of a tumor, there is no spasm for many years, then some unknown factor elicits it. The pure primary form (without tumor) he believes to be common in the adult as compared with the infant, although as already stated the symptoms are not pronounced.

Until recently all pylorospasm was believed by clinicians to be reflex but at present this belief is no longer tenable. Since most of the literature of primary pylorospasm has to do with the infantile form we may visualize the adult primary form as the same affection pursuing a milder, chronic course.

Physical Treatment of Joint Diseases—The report of the Committee on Standardization of Physical Therapeutics, 1925, of which J. W. Travell is chairman (*Physical Therapeutics*, February, 1926, vol. 2) finds in a review of the literature of the past year that in the treatment of joint diseases physical measures are in common use throughout this country. The report sets forth the treatment which the committee considers the most efficient. For acute sprain radiant light and heat rays, of sufficient intensity to cause active hyperemia, are applied for 15 to 20 minutes on the first day, followed by the static sputtering brush discharge for 15 to 20 minutes. On the second day, the static wave current, radiant light and heat, wave brush, in the order named, this treatment is repeated daily. In chronic sprain diathermy is used for 30 minutes, the static wave current for 20 minutes, and then the static spark to the region of the joint, in very chronic cases, r-ray therapy in small doses may be necessary. In strain or sprain of the sacroiliac joint, the sequence is active hyperemia, the static wave current, heavy static sparks, manipulation and correction of the dislocation. In acute synovitis, radiant light and heat are used for 20 minutes, and the static current for 10 minutes. The treatment of acute traumatic arthritis, is like that of acute sprain. In chronic traumatic arthritis, diathermy is used for 20 minutes, the static wave for 15 minutes, then sparks, and passive motion. In acute or chronic toxic arthritis, in addition to the endeavor to clear up the source of infection, the affected joints are treated with the static wave and short static sparks. Where many joints are affected, the static induced current and the static resonator effluve are most effective. In chronic septic arthritis the source and type of the infection should be considered, and locally diathermy with massage and passive motion should be used. In gonococcic arthritis, in addition to all well recognized methods, local treatment is applied to the seminal vesicles with the static vacuum tube of high vacuum from the negative pole for 20 minutes, or very mild diathermy, and diathermy also to the affected joint. In tuberculous arthritis sunlight or ultraviolet light is applied locally and generally, and the r-rays locally in small quantity, always below the skin dosage. In gouty arthritis, general diathermy should be employed with both feet on a metal plate con-

perience is absolutely necessary, skill and aptitude are of high importance, but over and above all this the real basis and the essential foundation for professional confidence and attainment is character!

Character can be felt and perceived rather than defined. We know whom we can trust. The professional man must be worthy of implicit trust. No matter what his knowledge, his training, his experience or his skill, if he be not trustworthy, if he lacks the real essentials of character, he is a menace rather than a minister to the human race.

Even in commercial pursuits character is increasingly recognized as a primary essential to successful attainment.

No higher or more competent tribute has been paid the medical profession in recent years than that which was vouchsafed the other day by one of the leading jurists of this city. To the *Medical Week*, the weekly publication of the New York County Medical Society, we are indebted for this fine judicial appreciation uttered by Chief Magistrate William McAdoo.

"The medical profession," this trusted public servant said, "is among the noblest, and to me it is a sacred one. It is in the forefront of civilization, especially in dealing with preventable diseases. It has made more advances in dealing with human suffering and preventable death than all other agencies. If ever

there is a roster of secular saints, the medical profession will crowd the ranks."

Speaking of our laws, which are designed to protect a credulous public against the deceits and the unprincipled knavery of dishonorable and unlicensed charlatans, and to safeguard and protect the honorable practitioner of medicine, Judge McAdoo further said:

"This State has hedged around this, I might say almost holy and sacred profession, dealing as it does with life and death, protection against quackery of all kinds, until our law in this State really reads that no one can profess to cure or undertake to cure by any means, whether muscular manipulation or the administration of drugs, or what not, without invading, and being guilty under our statutes, of practicing medicine without a license."

Every physician who is ever tempted to deviate from the paths of rectitude, from the high standards of professional honor or the exalted obligations which he has assumed, should pause and reflect upon these things. The writer, as the friend and the adviser of more than ten thousand doctors in this State, is constantly impressed by the uniformity with which medical practitioners follow and adhere to the principles of conduct to which they have sworn allegiance.

"With purity and with holiness I will pass my life and practice my art!"

TONSILLECTOMY—LOCAL ANAESTHESIA—BREAKING OF NEEDLE

The defendant in this action was the attending laryngologist at the clinic of a hospital. The defendant in the performance of his tonsillectomy had removed both tonsils by separation and snare, using a local anaesthesia. While injecting the local anaesthesia into the tonsillar area the patient, in suddenly jerking his head, broke the hypodermic needle and about one and a quarter inches of the needle remained lodged in the tissue beyond the tonsil. Attempts were made with clamps and forceps at that time to extract the needle, but such attempts were unsuccessful. Thereupon the patient was referred to the oral surgeon at the hospital for the removal of the broken needle. After examination of the patient the oral surgeon advised that no attempts be made at that time to remove the needle as it was beyond the capsule of the tonsil. X-rays taken showed the needle at that point. Nothing further was heard from this patient for some period of time, when the defendant received a telephone call from a physician at another hospital advising the defendant that

arrangements were being made for the removal of the broken needle under a local anaesthesia by external operation. Prior to this operation X-Rays were taken and showed the presence of the needle in the throat. The needle was removed by the second surgeon without any untoward results. At no time did the patient suffer any infection by reason of the presence of the needle or by virtue of the operation.

After the needle had been removed an action of alleged malpractice was instituted against this defendant, charging him with negligence in the performance of his operation in causing the needle to break and remain in the plaintiff's throat.

During the pendency of the action the defendant physician died. The action being one of alleged malpractice the same abated with the death of the defendant. This is a type of action which dies either with the death of the plaintiff or the death of the defendant, and does not survive to the administrators of either party.



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

CHARACTER THE REAL BASIS OF PROFESSIONAL CONFIDENCE

"I will follow the system of regimen which according to my ability and judgment I consider for the benefit of my patients and abstain from whatever is deleterious and mischievous

With purity and with holiness I will pass my life and practice my art

Into whatever houses I enter, I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption" Thus in the classical language of ancient Greece Hippocrates, the father and the founder of the medical profession, more than four hundred years before the birth of Christ, placed character as the essential basis of professional confidence. These precepts he wrote into the Hippocratic oath—an oath the perennial sanction of which is recognized in the United States now, as it was in the heyday of Hellenic culture.

In this commercial era, when success is so largely measured by monetary standards, the difference between a business and a profession cannot be too often emphasized. In the former, financial reward is the primary and essential aim, in the latter the object and purpose are the service to mankind, and monetary reward is merely the incident which makes it possible for those who have enlisted in a high calling to live and carry on their work.

"Every one on entering the medical profession and thereby becoming entitled to full professional fellowship," so read the Principles of Professional Conduct of the Medical Society of the State of New York, "incurs an obligation to advance the science and art of medicine, to guard and uphold its high standard of honor, to conform to the principles of professional conduct and to comport himself as a gentleman." And further "The medical profession exacts from its members the highest type of character and morals, and to attain such a standard is a duty every physician owes alike to the profession and to the public." And again "Physicians should not only be ever ready to respond to the calls of the sick and the injured, but should be mindful of the high character of their mission and the responsibilities they incur in the discharge of their professional duties." In their ministrations they should never forget that the health and the life of those entrusted to their care depend on skill and attention." And further "Every patient should be treated with attention and consideration and the confidences which physicians receive should be

guarded with the most scrupulous fidelity and honor." And still further "The physician should be a minister of hope and comfort to the sick." And again "It is the duty of physicians to bear their part in sustaining the laws, institutions and burdens of their community, they should co-operate in the preservation and enforcement of sanitary laws and regulations in the interest of public health. Physicians should always recognize poverty as presenting claims for gratuitous services. Every physician should guard and protect the medical profession against the admission of those who are either in moral character or education unfit as professional associates."

These are the recognized canons of professional conduct. They embrace principles to which all legitimate and honorable practitioners of medicine formally subscribe—principles, however, which have a deeper sanction than could be given by any mere formal recognition of their authority. They are the principles of right conduct and of character that are written into the consciences of those who have dedicated their lives to the healing art. The true physician recognizes and adopts these aims without the necessity of referring to any mere printed text which outlines and defines them, just as the true principles of justice are felt and perceived by the honorable advocate, over and above the cold precedents of the law. "The sacred rights of mankind," wrote Alexander Hamilton, "are not to be rummaged for among old parchments or in musty records, no, for they are written as with a sunbeam in the whole volume of human nature by the hand of the Divinity itself, where they can never be obliterated or obscured by mortal power."

The soldier has his manual of court martial, his books of strategy and tactics, his regulations for camp and combat, but over and above these his love of country guides and impels his action, even to the ultimate and final sacrifice. The clergy have their testaments, their books on theology and ethics, but their desire to help and to uplift the human race, as an impelling guide, is written upon the secret tablets of their hearts.

These are some of the reasons why the real lawyer resents hearing his profession referred to as the "law business" and why other professional men object to similar characterizations of the callings they have chosen. Knowledge is essential, training is indispensable, ex-

pursuit of happiness. It will call forth the best that is in one and, if he is a fighter, he will fight until the last barrier has been taken. There is great joy in the victory won in a clean fight."

This student enumerates sixty-four diagnoses of patients which he saw, each of which were made on from one to forty cases. He must have had a busy month packed full of varied experiences. He closes with these impressions:

"Much of the valuable experience that I derived from this unique service cannot be told, as it is only within myself. There is a certain confidence that comes, and a certain ability to act quickly and to think quickly and simply. It teaches one to think of the simple things first, and then, if necessary, refer back to the more remote possibilities. The main thing is to do something quickly and to keep your head. One should tell as much of the truth to his patients as is logical, and always say frankly that you do not know if something stumps you. These are a few ideas gleaned from all the doctors with whom I came in contact."

The second student spent his month in a group clinic conducted in a town of 2,500 people. He also accompanied some of the doctors on their rounds and on their visits to a hospital for paupers. He writes:

"I had heard a lot about group clinics, and the one at Woodland very nearly approaches the ideal. It was really good to see how they all worked together and helped each other. Every case gave to each one something of value. When one is practicing alone he naturally learns some things, but he also is apt to get into a rut, not only with his thinking, but in the way he does things. At the clinic, due to the combined aggressiveness and fine spirit, there is no chance to get into a rut. The clinic has an excellent library and with staff meetings where current literature is discussed, each member covering a certain field. The men are kept in close touch with the doings of the medical world. The men in the clinic are first, honest, and secondly, well trained, and so just knowing them many times overpaid me for all my time and effort."

"I have had for a long time the desire to practice in the country. The month in Woodland makes me more determined and certain that, after graduation, I shall practice in the country."

The third student was fortunate enough to be with a doctor who made it a practice to keep fully written records of his cases. He writes:

"The first lesson, although not previously planned, proved to be perhaps the most valuable one during the month. A young dentist, with office nearby, came into the office with one of his patients and a member of her family to ask Dr. Seawell's opinion concerning the proper method of treating an aching tooth.

The fact developed that the patient had absolutely no confidence in the ability of the dentist to handle the case, and was unwilling to undergo the proposed treatment without first consulting Dr. Seawell, whom she knew did not have the knowledge of dentistry of the other man, but in whom she had the utmost confidence and faith. This lesson brought out the fact, which was daily demonstrated, that a great part of the success of the man in practice lies in having the absolute confidence of the patient. A more timely demonstration for the benefit of a student is difficult to imagine, and its moral will never be forgotten."

He also adds his impressions about the way country doctors use their ingenuity in devising equipments and making diagnoses:

"The man in the general practice of medicine relies upon his eyes and his hands rather than upon instruments, except where they are really needed, for the diagnosis of his cases. In the home the necessity for using one's eyes and hands is shown most clearly. The light is not always of the best, there is no handy 'chariot' from which to procure tongue blades, and it is impossible to resort to instrumental methods such as we are trained to use in the hospital, so that we realize the insistence of our teachers in the hospital wards to use our eyes and our hands (as well as our heads) in the examination of patients. I learned that spoon-handles make satisfactory tongue depressors, that a few well-chosen drugs conveniently carried do just as well as elaborate prescriptions, and many other practical things that can be easily carried out in the home. More than this, however, I learned that if one is honest, kindly to all, tolerant and patient, there is, with his entrance into a home, a sense of relief, which, after all, in many cases is more than 50 per cent of the cure."

"I have seen a doctor enter the home of frightened parents of a sick child at midnight. I have seen him take the temperature, feel the pulse, drop a few cheery words and, without doing another thing, leave the household in perfect confidence that everything was and would continue to be all right. I think I began to understand something of the 'art of medicine' on such occasions, but I know I understood that behind this confidence was the implicit faith in the honesty and straightforwardness of the doctor. In addition to these attributes, or rather to possess them, one must have a knowledge of medicine of such a degree that confidence in one's self is inspired."

The fourth student was paired with student number one in a doctor's office. He wrote the following impressions:

"Besides seeing many cases and methods of treatment, I learned a great deal about the human side of the practice of medicine. By the



OUR NEIGHBORS



PRECEPTORS FOR MEDICAL STUDENTS

The April issue of California and Western Medicine, the official organ of the Medical Societies of the States of California, Nevada and Utah, contains an interesting description of a unique experiment in reviving the old preceptorial system by which medical students were apprenticed to practitioners who taught them the art of medicine or how to deal with people, while the medical school taught them science or how to deal with a disease. Some students have an instinctive knowledge of the way to make a happy approach to a patient, while others who know their science never acquire the art of satisfying patients because that side of the practice of medicine has never been brought to their attention. Medical schools have a way of turning a graduate loose upon the public as soon as he shows a knowledge of the science of medicine, regardless of the tyro's knowledge of the *Art* of practice. The result is like that of turning loose a musical student who knows the theory of the piano, but cannot play a tune. A quack doctor is successful because he knows the psychological art of pleasing his patients.

To give every medical student an opportunity to see how family doctors practice medicine would seem to be a necessary part of his training, as it was a half century ago. But it has remained for Dr. William J. Kerr, the head of the Department of Medicine in the Medical School of the University of California, to demonstrate the method. He chose four senior students and sent them to three general practitioners of medicine and to a small country hospital. The following quotations from their reports reveal their enthusiastic approval of the plan.

The first student spent a month in the office of a public-spirited doctor who was also health officer and was interested in civic affairs. This student wrote:

"One can see that a general practitioner is a busy man. Not only were professional duties attended to, but also municipal duties along public health lines. There were also the noon luncheon clubs to attend and committee meetings of all kinds.

"Dr. Chain, being health officer of the city of Eureka, made calls on smallpox, and other patients with 'reportable' diseases. I also saw the inner workings of a city health laboratory. Every day the city water was tested for colon bacillus, and once a month the milk supply was given a bacteria count. The routine diphtheria cultures were run through every day, and many

other examinations of specimens of all kinds made.

"I also saw the indifference of the average doctor to public health matters. Some even resent interference with their work, even in the enforcement of quarantine.

"The Tuberculosis School was another source of interest and profit to me. In this school they teach the persons who are infected how to live and how to prevent the spread of the disease, as well as help them on the road to recovery. Contacts are taken in and taught the food to eat, the precautions to take, and the routine life they must live in order that the disease will not take a firm root in their bodies.

"To do effective public health work in the small town is not conducive to popularity. The quarantine of a diseased case may gain the enmity of the doctor and the family. The killing of a pet poodle with rabies may incur the enmity of a certain faction in the community. The destruction of a herd of tuberculous cattle brings a decided reaction from the farmers. The life of the public health doctor is a bitter struggle, where enemies are made and very little praise received. One must have the courage of his convictions and have the good of his profession and the welfare of the community at heart.

"These small-town doctors possess that wonderful something that one acquires in mastering the art of medicine. They do not have patients who are seen in the ward or office and then forgotten. All of their patients are their friends. The doctor is vitally interested in them and they have absolute confidence in him. It is an inspiration to see the faith that these people have. They are a simple people, and demand simplicity in return. All the doctors possess that spark of sympathy that kindles in every person a feeling of faith and hope. One realizes that ours is a noble profession and demands high ideals. You are the priest as well as the doctor, and in many of the cases a bit of kind advice goes much further than tons of C. C. pills.

"The picture must not be painted too brilliantly. Unfortunately, one must live. One must have money. There are men in the profession who so devotedly worship at this shrine that they lose their higher ideals. This is often the cause of bitter jealousies and of unprofessional practices. The cream of the jest is that this is merely life. In the lecture hall and classroom we do not realize that outside of the college there is a bitter fight for the preservation of life and the

of sincerity, and knowledge of Dr Kerr's ideals, and strict obedience to them on the part of the preceptor, as well as the student selected, for it would be a tragedy to besmirch the student possessed of the ethics and training of an established and honored university by an association with the physician or surgeon whose position and affluence were the outcome of perfidious methods of pseudo-humanitarianism.

Again, before the departure of the student it should be impressed upon him that he is on his way to be educated in the art particularly, and very much less so in the financial remuneration of the art, and that he must accept the finer principles of the art only when they correlate with his own rules of honorable conduct.

"The preceptor must not see in the presence of the student a possible unqualified assistant for here lies a great danger.

It would seem to me that a well-equipped general practitioner should be assigned to the teaching staff of the university, and should

receive a proper titular position and a chair, subsidiary if you like, on the art of medicine, for by so doing, Dr Kerr's plan would be enhanced, as the student would leave for his month's association with the preceptor equipped to appreciate the art as demonstrated by him.

"A science teaches us to know, an art teaches to do and the doing of a doctor is to cure. Dr Kerr's most praiseworthy and interesting experiment will, I am confident inculcate in the self-reliant and the diffident student alike a courage to cure, the possession of which brings the confidence of the patient which, after all, is the foundation of any medical man's efficiency."

It would seem that an intimate apprenticeship of a month or two, with a general practitioner would be a most valuable asset to a young medical graduate. Possibly, too, it would be to the advantage of the doctor to brush up on his science. The plan has the possibilities of an exchange of equal values between student and preceptor.

COLLEGE OF HEALTH EXAMINATION AND EFFICIENCY RESEARCH

There is how the Oregon State Medical Society is acting on the question of periodic health examination, according to the April issue of *Northwest Medicine*, the organ of the medical societies of the States of Oregon, Washington, Idaho, and Montana.

"In order that approved methods for examination of apparently well persons may be facilitated, it is proposed to select a faculty from the members of the Oregon State Medical Society who have shown themselves competent for making physical examinations in a creditable manner. They will organize a 'College of Health Examination and Efficiency Research' to be known as the C H E E R. They will first qualify by being examined themselves and agreeing to be examined annually. Team work will be used for giving instruction and demonstration examinations before classes and medical societies. A postgraduate course of instruction will be open to all members of the society, provided that they agree to be examined themselves and to take a course of instruction in making thorough examinations.

Particular care will be used in selecting instructors who have demonstrated their ability to do this work well. When a member of the Society has completed one hundred examinations and filed his case records with the college, his application for fellowship will be considered. If the records are approved and the advice given by him is satisfactory, the faculty can then elect him a fellow. It is necessary, however, for every fellow, member and student to go on record, stating he will be examined annually."

"This movement is to be popularized by practical demonstrations before local medical societies. It is of the utmost importance that every physician interested should not only be examined annually himself, but should make every effort to see that the members of his family also use this privilege. We would then be able to demonstrate to the public that we are not only taking our own medicine but are placing ourselves and our families in a position to enjoy longer life and better health."

human side I mean the ability to encourage a patient who has a slow recovery before him, the knowledge of what to say when a diagnosis cannot be established at the first visit so as not to lose the confidence of the family, or tact in giving to the relatives a practically hopeless prognosis without shocking them. Of course, there are no stereotyped formulas for these and many other delicate situations with which a physician has to cope, and, even if there were such formulas, three weeks would not be nearly sufficient time to learn them. But these three weeks under the guidance of the doctor have given me the realization that every patient and every family is a problem of its own, and that the most important thing in the relations between doctor and patient is the sympathetic attitude of the former to the latter. If this spirit of sympathy prevails it will not be very difficult for the doctor to do or to say the right thing, provided he has a reasonable knowledge of human nature that gradually develops with years of experience.

"In still another way have I profited by this experience. There is something lacking in the life of a medical student, perhaps it is lack of time or the fact that in teaching hospitals the patients are cared for by the staff, and the student does not have the personal contact with them which would be most valuable for him. Contact with the doctor and his humanitarian point of view, which makes him see the situation through the patient's eyes, has helped me to see this fault in myself.

"In my opinion, this elective course in Practical Therapeutics and the Art of Medicine is a unique opportunity for the medical student, and I would not have missed it for a great deal. It also seems to me that what has been done this year at the University of California Medical School should be communicated by some appropriate channel to other medical schools.

"In conclusion, I want to say that I think the value of an elective course such as this would be still enhanced if it were offered after completion of the interne year. There are several arguments in favor of this. In the first place, the young doctor would be in a position to get more out of it than the senior student. In the second place, more time could be devoted to the course, say from six weeks to three months, depending on mutual agreement, and, last but not least, the physician in charge would be able to delegate the young doctor to do a part of his routine practice and thus receive something in return for the time and effort required for teaching."

Dr Ray Lyman Wilbur, President of Stanford University and Past President of the American Medical Association, comments on the experiment

"It is an inspiration for any medical student to come in actual contact with the ordinary life of the practising physician. I am very much pleased with Dr Kerr's experiment and with the results. I think it offers a method of revival of some of the most useful elements in the apprenticeship system. While it may be troublesome, it seems to me that it has advantages, both for the practitioner and for the student. Any wide-awake well-trained medical student can contribute a great deal by spending a month with a man practicing in the country. He is not entirely on the receiving end. The doctor gets considerable assistance."

Dr Fred R Fairchild of the group clinic to which one of the students was assigned, writes

"It is accepted that our young men and women are graduated with a high degree of technical knowledge. It is almost as generally recognized that they are graduated with a minimum appreciation of the true art of the physician.

"Scientific training is not a substitute for a lack of sympathy and understanding. An ability to view disease from the patient's standpoint is the fundamental principle upon which the art of the practice of medicine is based. A high degree of specialization tends toward commercialism and a cold-blooded, scientific approach. A disease is viewed as an interesting scientific problem, not as a disaster that has overtaken a human being.

"The plan by which the student is given an intimate association with a man in general practice who knows his patient and understands his economic problems, as well as his physical ills, will give to him a new conception of the true physician. And only by such association can the student come to have any idea of the value of this intimate relation.

"The student will approach such an experience with enthusiasm and with not a little egoism. He will feel that he is better trained—and usually he is—scientifically, than the man to whom he goes. He will confidently match his theoretical, scientific knowledge against the years of experience and the practical horse-sense of his preceptor, and he will return to his duties at college a wiser and a humbler lad.

"Dr Kerr should have our unqualified support. This little beginning, carried to its logical conclusions bids fair to restore to our profession something of the wonderful spirit which the laboratory has crowded out."

Dr J Wilson Shiels comments on the experiment as follows

"The success of Kerr's plan depends absolutely upon the most careful selection of the preceptor, and this selection should not be governed by any wealth other than a wealth

own children for a more eminent service to the world relatively than the members of any other profession. Whatever may be said for the cele-

briety of the clergy, there is something to be said for a system whose ministers contribute so largely to a public good through their sons."

SONS OF PHYSICIANS

It is interesting to compare the children of ministers with those of physicians. This has been done by Dr William Browning of Brooklyn, in a book of 225 pages entitled "Medical Heredity." On page 175, Dr Browning quotes "Who's Who in America" for 1910-11, and shows that out of 16,027 persons listed, 846 were sons of physicians. This makes the percentage five and a quarter—about half that of the sons of ministers. Three persons out of the sixty-two in the "Hall of Fame" of the New York University were children of physicians—a percentage of a little over five.

There is an opportunity for someone statistically inclined to study the sons of the present generation of physicians of New York State and the Nation.

How many sons of physicians, or are studying medicine?

How many sons have entered the profession because of the quiet example of their father's love for medical work?

How many sons have not considered a medical career because their fathers said "I don't want any son of mine to be a doctor?"

FAITH HEALING

Dr S. Parkes Cadman, pastor of the Central Congregational Church of Brooklyn, N. Y., frequently expresses his views regarding the relation of science to religion. The *Herald-Tribune* of April 16 contains the following question:

"You have quoted in connection with the cleansing of the lepers one of Jesus' sayings: 'He that believeth on me, the works that I do shall he do also, and greater works than these shall he do, because I go unto my Father.'"

"We are taught that the Bible is a book of truth, and, such being the case, can we not take these words literally and hope for physical relief if we have the needed faith?"

Dr Cadman's reply was as follows:

"When Jesus said to the disciples, 'The works that I do shall he do also,' He did not add the clause, 'in the same way that I do them.' Twentieth century Christians believe in Christ and also obey those laws of life and health which were not clearly understood in New Testament times."

"Modern scientific methods of attacking disease have triumphed over it in such wholesale

fashion as to fulfill this great saying of Christ:

"Think of the banishing of yellow fever from South American ports and the checking of Asiatic cholera in the Philippines as instances of the overwhelming defeat of misery and death which our age has witnessed!"

"The New Testament nowhere promises universal immunity from bodily sickness and suffering. Its actual writers were tortured, flayed, burned and crucified. Its Lord hung on a cross wet with His life blood. The 'greater works' of which He spoke in St. John's Gospel (xiv 12) are by no means confined to marvels of physical healing. On the contrary, they cover the entire scope of a new dispensation of which Christ is the central figure and the Everlasting Father of its program and power."

"Survey, I beg you, the splendid unfoldings of that dispensation in history and experience for the past twenty centuries. Then you will be the better prepared in body and soul to take advantage of physical and spiritual aids for your own relief."



THE DAILY PRESS



BURBANK AND MEDICINE

The recent death of Luther Burbank has focused attention on evolution of which he, like his great predecessor, Mendel, was a practical exponent. As the Monk, Mendel discovered and formulated the laws of heredity, so Luther Burbank, a half century later, applied those laws in an extremely practical way in the breeding of plants. Other men had improved the breeds of both animals and plants by the selection of the best parent stocks, but Burbank experimented on a scale more elaborate than ever before. He started with pedigreed seeds, accurately cross-fertilized the flowers on the developing plants, and worked only with the very few plants that showed the qualities which he desired.

An editorial in the New York *Herald-Tribune* of April 12 comments on his achievements as follows:

"The work of the great plant experimenter was of immense practical value. His improvement of staple foods alone made him a permanent world benefactor. It was his good fortune that his achievements were of a type to capture imagination, and his unselfish, lovable charac-

ter seemed to all quite in keeping with the gentle art which he pursued with such consummate skill.

"Burbank deprecated the notion that he was a creator. He gave superlatively intelligent direction to plant breeding. His experimental gardens were, in his view, a laboratory of evolution. Certainly there has never been more astonishing manipulations of hereditary traits than he achieved. He had no doubt that the same kind of magic could evolve an aristocracy of the human race. He would not have been averse, perhaps, to trying that experiment. 'But they wouldn't let me,' he said."

Luther Burbank's work led him naturally into theological speculations to which only casual references were made in the daily press. To him the great controlling factor in all forms of life, including the human, was hereditary rather than environment, predestination rather than conversion, and faith rather than works. It is no wonder that he supported faith healing, even though he was reported to hold atheistic views.

SONS OF MINISTERS OF THE GOSPEL

A favorite example quoted by the opponents of the theory of heredity is that of erring sons of ministers of the Gospel. The *Herald-Tribune* of April first has a lengthy editorial on that subject whose occasion was a meeting of the Sons of Methodist Ministers. The editorial took the year book, "Who's Who in America" for 1922-1923 as a standard measure of prominence, for in that year all persons who were listed gave the occupations of their fathers. The editorial says:

"Eleven and one-tenth per cent of those recorded had a clergyman for a father. Besides, a considerable number reported that the father was a 'farmer and preacher,' etc."

The *Tribune* then analyzes these figures and takes the census figures for 1870, which was the census nearest the year of birth of the prominent men listed in the 1922 year book, and shows that the Protestant clergymen in that year numbered four-tenths of one per cent of all the men living at that time. Making comparison with men in other occupations, the editor says:

"In proportion to the population clergymen fathered fully twenty-eight times the average number of notables—as notability is reckoned by

'Who's Who.' Another way of putting it is that the clergymen of 1870 contributed in proportion to their numbers about 2,400 times as many eminent persons, according to these standards, as did unskilled laborers, thirty-five times as many as did farmers, four times as many as business men, and over twice as many as the average of other professional men."

The editor is inclined to the belief that the sons of ministers acquire fame because of their early environment rather than heredity, but he says:

"But even a half-century ago the ministry invited to a greater extent relatively the more brilliant minds, and it is to be assumed that heredity has also entered into the advantage that men had who were born the sons of clergymen in that period, and back of it to the first Colonial days, when the minister had usually the most respected place in every community.

"The ministers are at a disadvantage when their salaries are compared with those of other vocations, even teachers, yet by thrift and sacrifice they have managed not only to continue in their high profession, but also to prepare their

The book should be read by every medical man and should find a conspicuous place on the table of his waiting-room

F. B. DOYLE

SOCIAL PSYCHOLOGY By KNIGHT DUNLAP Octavo of 261 pages Baltimore, Williams and Wilkins Company, 1925 Cloth, \$4.00

If you are looking for an interesting book, that is brimful of information, on Social Psychology, look no farther. At last, one has been written that covers the field in an intelligent manner. The unconscious mind is cast into the limbo, and human traits are discussed as they exist and not through symbols. The author is wise enough to know that most people are quite conscious of their sexuality, and that the dream world does not have to be invaded to find out the real person. The chapter on marriage is peculiarly interesting, and, if read understandingly, would be of far greater help to married persons than most of the books on the subject that we have read. The other chapters are of interest but less so than the one on marriage. This institution is being reviewed from many angles to-day. The author discusses it historically as well as psychologically, so that the reader has a broad viewpoint, if he wishes to further investigate the subject. The comparison of men with women in so many different ways we imagine, will detract from the popularity of the book, as this feature will be irritating to some persons and more especially to women. Be that as it may, we can recommend this book as one of prime importance both to physicians and people generally.

J. ARTHUR BUCHANAN

THE EARLY DIAGNOSIS OF THE ACUTE ABDOMEN By ZACHARY COPE, B.A., M.D., M.S., Lond., F.R.C.S. Eng. Third Edition Octavo of 233 pages with 28 illustrations London Humphrey Milford, New York Oxford University Press, 1925 Cloth, \$3.80 (Oxford Medical Publications)

A comparatively small book, of some 200 pages, it contains a vast amount of information on a subject of paramount interest to every practitioner.

The author dwells particularly on the importance of early diagnosis. He points out the essential characteristic features associated with each particular acute disease of certain abdominal viscera. These when analyzed and properly interpreted, indicate the diagnosis.

Attention is called to certain acute thoracic conditions, the onset of which frequently simulates an acute abdomen. In these cases, a hasty diagnosis and a rash surgical attack often leads to disaster.

One must read this book to appreciate it.

HERMAN SHANN

THE NURSING OF EYE CASES By LOUISE KINGHAM S.R.N. 16mo of 16 pages London, Humphrey Milford, New York, Oxford University Press, 1925 Paper, 30c.

A most estimable little folder written ostensibly for the nurse "to give" her 'some notion of the relative gravity of accidents to the eye.' The reviewer feels that he has gained considerably by a perusal of this fifteen-page outline, that any Board of Directors would be well repaid if they presented each Intern, Nurse and Orderly with a copy of it. It certainly is a very definite and impressive method of insuring more intelligent co-operation.

J. N. EVANS

ARTIFICIAL SUNLIGHT AND ITS THERAPEUTIC USES By FRANCIS HOWARD HUMPHRIES M.D. (Brux.), F.R.C.P. (Edin.), M.R.C.S. (Eng.) L.R.C.P. (Lond.), L.M. (Rot., Dublin), D.M.R. and E. (Cantab.) Second Edition Octavo of 201 pages with 11 illustrations.

London Humphrey Milford, New York Oxford University Press, 1925 Cloth, \$2.75 (Oxford Medical Publications)

In the last few years the growing interest in the newer physical agents has brought forth many books concerning them, their apparatus and the technique of their application. In some instances the claims put forward by the authors encourage one to suspect, at least, a hyper enthusiasm for their subject. In this new book Doctor Humphries has given us a fair statement of the facts. The theory is thoroughly discussed, the apparatus is described in detail and the indications, proper dosage and technique are so well handled that the work might well be called a handbook or manual, of the subject.

The chapter on the use of artificial sunlight in the treatment of skin diseases is very interesting and instructive. The author claims, and we think rightly so, superiority for this agent in the treatment of alopecia areata. In its use outside of dermatology we have had no experience and of course are not qualified to speak, but, judging from his statements made concerning its uses in our field, we believe that the book will prove a valuable addition to any medical man's library.

The illustrations are well executed and the whole book from a physical standpoint is in the usual splendid style of the Oxford University Press.

NATHAN T. BEERS

SOME FUNDAMENTAL CONSIDERATIONS IN THE TREATMENT OF EMPYEMA THORACIS By EMMETT A. GRAHAM, A.B. M.D., Professor Surgery Washington University School Medicine. Illustrated, C. V. Mosby Co., 1925 Price, \$2.50

This essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery in 1920.

The essential points of the principles of treatment advocated by the author are (1) Careful avoidance of open pneumothorax in the acute stage, (2) The prevention of a chronic empyema by the rapid sterilization and obliteration of the infected cavity, and (3) Careful attention to the nutrition of the patient.

The chapter on Pathology is very complete and descriptive, and an effort is made to justify the enumeration of the above principles rather than to go into an exhaustive discussion of the many details involved in the surgical treatment.

The Addendum answers the criticisms of some of the theoretical aspects of the treatment of empyema, as it was described in the original essay. A Bibliography is added which contains some references as recent as 1924. This is a valuable contribution to the literature on this subject by reason of the completeness of the study.

J. R.

CLINICAL LABORATORY MEDICINE. A Text-Book of Clinical Laboratory Diagnostic and Therapeutic Procedures By HENRY M. FEINBLATT, M.D., and ARNOLD H. EGGERTH, A.B., A.M. Octavo of 424 pages with illustrations New York, William Wood and Company, 1925 Cloth, \$5.00

This book includes a description of the methods in clinical pathology which have been found most satisfactory in the hands of the authors, together with special chapters on such subjects as hydrogen ion concentration, basal metabolism, blood transfusions, the use of convalescent serum in measles, the Shick test and the Dick test together with active and passive immunization to scarlet fever and diphtheria. Perhaps the chief value of the book lies in the interpretation of the various chemical findings, which is based upon elaborate studies of both the clinical and analytical factors in a very large series of patients. The result of these studies have been published in a series of papers by Feinblatt within the past few years, which are familiar to students of the current literature. It is satisfactory to have them consolidated as they furnish an authoritative basis for judging the significance of these factors.

T. H.

BOOK REVIEWS

TEXT-BOOK OF NERVOUS DISEASES FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE. By CHARLES L. DANA, A.M., M.D., LL.D., Professor Nervous Diseases Cornell University Medical College, Consulting Physician Bellevue Hospital Tenth Edition Two hundred and sixty-two illustrations, four plates in black and color William Wood and Co., 1925 Price, \$7.00

The development and progress of the science of neurology might well be of interest to the world in general. Because of the fact that the neurologist comes in contact with every vital problem in life, its cause and effect, his efforts and accomplishments unquestionably bear upon the welfare of the human race. This text-book contains the study of the diseases of the nervous system, there is a chapter on medical psychology, the study of which is absolutely essential for and fundamental to the comprehension of nervous diseases. Of great interest is a chapter on the history of neurology, proving this science to be by no means young. As far back as the very beginnings of civilization was there knowledge of "neuroses" and research work along those lines. This chapter by Fielding H. Garrison, A.B., M.D., is most fascinating and profitably educating. In this edition the author has brought the text up-to-date and has added new chapters on preventive neurology and Epidemic Encephalitis. We believe this to be an excellent book for the student, it is complete in subject matter rendered in such a way as to be easily grasped by the reader. F. C. E.

WILLIAM CADOGAN (His Essay on Gout). By JOHN R. HARRAH, M.D. Professor Diseases of Children, University Maryland Paul B. Hoeber, New York, 1925 Price, \$1.50

This is indeed a very entertaining book from the standpoint of medical history. The poem in the last part of the book is very good.

The subject is well gone over and it shows that there is little in regard to treatment, that has changed from the eighteenth century up to the present time. One can get a great deal of pleasure as well as instruction in reading this book.

KENNETH MACINNES

OPERATING ROOM PROCEDURE FOR NURSES AND INTERNS By HENRY C. FALK, M.D., with foreword by EUGENE H. POOL, M.D. With 275 illustrations G. P. Putnam's Sons, New York, 1925 Price, \$2.50

This volume contains a description of the desiderata for the ideal operating room, personnel, apparel. The method of making supplies, dressings, drains, system of keeping supplies, the preparation of the patient, care and sterilization of instruments, hands, "setting up" of the operating room, and a detailed discussion of necessities for each individual operation are some of the topics treated. H. K.

PUBLIC HEALTH IN THE UNITED STATES An Outline with Statistical Data. By HARRY H. MOORE. Octavo of 557 pages, with illustrations. New York and London, Harper and Brothers, 1923. Cloth, \$4.00 (Harper's Public Health Series)

This volume is an illuminating record of the public health activities in the United States. It especially demonstrates the practicability of this work. The chapter on "Unconquered Enemies" is not only extremely interesting but should inspire a great many of us to strive to overcome these sources of danger. The work covers all angles of the sanitary situation of the present age. J. J. W.

A TEXT-BOOK OF PATHOLOGY, with a Final Section on Post-Mortem Examinations and the Methods of Preserving and Examining Diseased Tissues. By FRANCIS DELAFIELD, Sometime Professor Practice of Medicine, College of Physicians and Surgeons, New York, and A. MITCHELL PRUDEN, M.D., LL.D., Sometime Professor of Pathology, College of Physicians and Surgeons, New York. Thirteenth Edition. Revised by FRANCIS CARTER WOOD, M.D., Director Pathological Department, St. John's Hospital, and Institute of Cancer Research, Columbia University, New York. Eighteen full-page plates and eight hundred and ten illustrations, text in black and colors. William Wood and Co., New York, 1925 Price, \$10.00

The subject of pathology is very well presented by authors of recognized standing in this field. The book is divided into three parts. First, general pathology which treats of the structural changes that occur in the body tissues during disease irrespective of any special location. The second part takes up special pathology, which consists of the structural changes that occur in the different organs during disease. In the third part the subject of post-mortem examinations is taken up. In this section there is a detailed description of the methods to be pursued in making a post-mortem examination, whereby the different lesions in the organs are noted and correlated. As a whole, the book is of great value in arriving at an understanding as to structural changes in the organs which manifest themselves as disease during the life of the individual.

E. H. NIDISH

FOOD AND HEALTH By R. H. A. PLIMMER, D.Sc. (London), Professor Chemistry, University of London, and VIOLET G. PLIMMER. Colored frontispiece and diagrams in the text. Longmans, Green & Co., 39 Paternoster Row, London, E. C. 4, New York, Toronto, Bombay, Calcutta and Madras, 1925

This handbook gives a splendid summary of the essential elements in a correctly balanced diet. It is particularly interesting, first because of the simple and readily understandable way the book is written, and secondly, because of the use of an illustration called the "square meal."

Vitamines are very carefully gone over and there is a splendid chart in the front of the book that shows the different foods which are rich and poor in vitamins, so at a glance one can tell what to eat and what not to eat. It is a splendid book from which to get an idea of the basic principles of diets.

KENNETH MACINNES

THE MEDICAL FOLLIES An Analysis of the Follies of Some Healing Cults, Including Osteopathy, Homeopathy, Chiropractic, and the Electronic Reactions of Abrams, with Essays on The Antivivisectionists, Health Legislation, Physical Culture, Birth Control, and Rejuvenation. By MORRIS FISHBEIN, M.D., Editor of the *Journal of the American Medical Association* Boni & Liveright, New York, 1925

The "Medical Follies" is another conspicuous and signal contribution to medical literature by the scholarly editor of the A. M. A. His canvass is big and his colors are thrown on thickly but with accurate aim and unerring skill. He pictures the truth as he sees it, and as the archives of the A. M. A. will tell anyone who seeks it, as the author has done. The Follies, like its well-known namesake on Forty-Second Street, is not devoid of humor, which is not without its sting and gives it a filip like a good cocktail.

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REPORT OF THE SPEAKER

To the House of Delegates

GENTLEMEN

The relation of the Federal and State Governments in control of the affairs of the Nation and concerned with the welfare of the people, forming a close union, working for the common good of all, may be used as an illustration of that which exists between the American Medical Association and its constituent State organizations

The American Medical Association is doing notable work for the Medical profession and through it for the public at large, while the State Societies are doing the same thing in detail for the profession and through it for the people of the States

This service for the community, as expressed in the preservation of health and the prolongation of life, is enhanced by the close union of the National and State bodies which is essential to greater efficiency and co-operation in the maintenance of individual and public health and in the enlargement of the field of usefulness for the profession as a whole

For better understanding and co-operation it is recommended more urgently than heretofore that the delegates to the American Medical Association should take back to the profession of the State the message of the national body as observed by the delegates of the State who participate in the work of the House of Delegates of the American Medical Association

The Trustees reported that the matter of solicitation of subscriptions to the JOURNAL and other publications of the Association has been conducted in the several states in co-operation with the officers of Constituent Associations, effort being made at the same time to secure

members for the County Associations. The result reported in Georgia and New Jersey were 232 applications for membership, 413 subscriptions for the JOURNAL and 39 subscriptions to the special journals and is evidence of the desirability of this procedure.

The Section on Preventative and Industrial Medicine and Public Health in conjunction with the Section on Ophthalmology secured the adoption of the following important recommendation

"Every individual owning a motor vehicle of the self-propelling type, shall be required to present to the Motor Licensing Board in each state a certificate from a reputable physician (the standard of such medical fitness shall be licensure to practice medicine or surgery) in which the points regarding visual standard are certified. The applicant should have vision in one eye at least 20/50 and vision of at least 20/100 in the other eye with or without glasses. He shall have no disqualifying defects in either arms or legs and must be able to hear low spoken voice at five feet, the mentality of the applicant must be adequate and the heart's action reasonably healthy."

It might be well to add that the applicant should not be addicted to alcohol nor narcotic drugs

The House of Delegates requested that every member of the American Medical Association subscribe for *Hygeia* and that the magazine be kept in reception rooms in order that subscriptions may be encouraged among the laity. The Speaker has complied with that request and the circulation has been increased by some readers wishing to possess the magazine.

The House adopted, at the request of the Reference Committee on the Board of Trustees, a

PHYSIOLOGICAL CHEMISTRY A Text-book and Manual for Students By ALBERT P. MATHEWS, Ph.D., Professor of Biochemistry The University of Cincinnati, O. Fourth Edition Illustrated William Wood and Co., New York, 1925 Price, \$6.50

Physiological chemistry as outlined in this new edition lends itself to great commendation. The subject is presented in a thorough and systematic manner and any medical student or practitioner would find many a chapter to absorb his interest. The book is divided into three parts. First the author takes up the chemical constituents of the body tissues. Second, the chemical and metabolic changes that take place in the body, and third, the practical methods used in the determination of these various changes. A knowledge of these various processes that are constantly going on in the body is indispensable to the rational treatment of disease. Methods are described which have practical application in the diagnosis and treatment of such diseases as nephritis, diabetes, and other metabolic disturbances, by the use of the newer methods of chemical blood analysis. These are only a few of the interesting features found in this book.

E. H. NIDISH

AN APPROACH TO SOCIAL MEDICINE. By FRANCIS LEE DUNHAM, M.A., M.D. Octavo of 242 pages. Baltimore, Williams and Wilkins Company, 1925. Cloth, \$4.00.

This volume might well be considered an exhaustive treatise analyzing those problems that so often confront both the physician and the social service worker in their dealings with the sick. Unsound minds so frequently dwell in abnormal bodies that the modern physician, it would appear, must be somewhat of a psychologist, as well as a psychiatrist, appreciating fully the significance of "social relativity," "social criteria," etc., and able to recognize a "behavioristic tendency" at a glance.

As the author sees it, the purpose of Social Medicine "is to further the application of scientific methods of organization to man's social habits in order to determine their usual biological characteristics, to discover the sources, causes and effects of instability and to establish a sympathetic equilibrium between the organism's innate and acquired tendencies." In a section devoted to Human Energies and Social Forces the author considers the role played by personality, instinct and conduct, standards of living, food, shelter, human fellowship, etc., in the development of physical and mental health, both for the individual and the community. A discussion of general and preventive medicine and social problems naturally leads to a consideration of venereal disease and its control, cancer, tuberculosis, alcoholism, drug addiction, cripplehood and mental disorganization. In the opinion of the author "the venereal question fundamentally is one of personal hygiene in its relation to infectious phenomena, to be presented in the school curriculum to each individual during early adolescence, as a topic in the course on general infection and immunity." Concerning alcohol "agreement is general that the abuse of alcohol is responsible for a large proportion of the crimes of violence, of industrial inefficiency, of poverty and misery, of suicide, and of sexual offences." As for drug addiction "the use of narcotic drugs in the United States is diminishing slowly." The author's views on these three problems will not be universally subscribed to by those qualified to speak.

An appendix contains a number of forms which have been found of value in eliciting from patients personal, physical, psychologic and social data.

FRANK E. MALLON

MODERN OPERATIVE SURGERY Edited by H. W. CARSON, F.R.C.S., Eng., Senior Surgeon, Prince of Wales' General Hospital, Tottenham, Lecturer on Abdominal Surgery, North-East London Post-Graduate College. In Two Volumes with 735 Figures and 6 Plates. William Wood and Company, New York, 1925. Price \$20.00 set.

"This work is an attempt to present to the Profession an authoritative survey of the whole range of modern surgical operations." Thus Modern Operative Surgery is introduced by its editor who speaks for two dozen English authors working under his supervision. Such procedures as seem to have outlived their usefulness have been omitted and among the new operations only those which have proved their value have been included. This plan seems a sensible one and has been followed in a discerning way.

The surgical anatomy involved in many of the operations is adequately presented and the indications for operation discussed. After-treatment is emphasized and statistics of results of the various operations are frequently noted. The technique of operations is clearly outlined, the necessary instruments are enumerated and the appropriate anaesthetic in each case is indicated. By the way, the anaesthetic which is frequently recommended by these English surgeons is chloroform or C.E. In America this would not be accepted by the vast majority of operators or anaesthetists. However, in only a comparatively small number of instances would American surgeons be likely to object strongly to the methods advised in these volumes. The treatment of fractured patella by means of sutures of soft iron wire is probably one case in point. The statement "As a general rule, most empyemas should be drained as soon as they are diagnosed" would at least arouse discussion on this side of the water.

In the treatment of lung abscess no mention is made of the cautery operation of Graham, but this is probably due to the editor's declared intention to describe only what has definitely proven itself of value. Blood transfusion is quite fully discussed but the omission of a description of the method of Unger or of Miller, which have been accepted in so many of our hospitals, mars the completeness of this chapter.

The description of amputation of the breast includes directions for the holding of the arm by an assistant. We wonder if the author has ever experienced the comfort contributed by a long, narrow, metal shelf for the arm which shelf can be thrust under the patient's shoulder and will hold the arm at any desired angle.

The Rammstedt operation is given as the accepted treatment for congenital pyloric stenosis, but the use of a general anaesthetic for tiny, ill-nourished infants seems unnecessarily dangerous to those who employ local anaesthesia with utmost satisfaction in these cases.

For diagnosis of subphrenic abscess the use of an exploratory needle passed through the diaphragm is advised, for its treatment the transpleural operation is favored.

In the treatment of hyperthyroidism ligation of arteries has seldom been found necessary if proper medical care has been prescribed for a sufficient length of time before thyroidectomy. Chloroform anaesthesia is condemned in this condition and a preference for open ether administration is expressed. Local anaesthesia is sometimes resorted to. Gas-and-oxygen is not mentioned in this connection.

Among gynaecological operations one partial perineorrhaphy and one complete perineorrhaphy are described in marked contrast to the common run of books in which many different procedures for the same purpose are depicted. Subtotal or supravaginal hysterectomy is recommended for the majority of cases of fibroids, fibrosis and metritis.

The subject of prostatectomy is very fully considered. Under the head of haemorrhage no mention is made of the efficient Pilcher bag or of any similar apparatus.

These volumes have been carefully edited and their multiple authorship would hardly be suspected. They are presented in an attractive form and are illustrated in a way to help the meaning of the text. Only the highest commendation would characterize an honest review of this work which will undoubtedly be welcomed by all surgeons.

T. B. SPENCE.

established a section on Radiology. The following resolution was adopted at the request of the Reference Committee on the Judicial Council:

Resolved, That it is the sense of this House of Delegates that the periodic health examinations should be conducted by medical men and neither dominated by nor controlled by lay organizations, for the reason that the relation between the patient and the physician is an individual matter and anything that disturbs such relationship is detrimental to the best interests of the patient.

Resolved, That it is the sense of this House of Delegates that every Fellow and Member of the American Medical Association should live up to the spirit and letter of this resolution.

The address of the President, J. Basil Hall of the British Medical Association and its official delegate to the annual session of the American Medical Association contains a valuable practical lesson on Medical Organization. In 1912 the Medical Profession in England was compelled to face the National Health Insurance Act and the Association was poorly organized to meet this great question. The members disliked contract service with the government, there was a great outcry and they were not going to submit to the provisions of the Act. Mr. Lloyd George said if the Medical Profession as a whole did not come in to work with this Act and along the suggested lines, he had up his sleeve, sufficient medical men to establish a State Service and work it on lines which the members of the Association wished to avoid. Finally there was a great panic, the organization tumbled to pieces and every one went into the Act. It was a pitiable spectacle because they went into it after they said they wouldn't. The British Medical Association came in for a good deal of abuse. That was thirteen years ago, but as now organized the British Medical Association is in the opinion of many people the strongest trade union in the British Isles.

Prior to the war each panel doctor received seven shillings or seven and sixpence that is, nearly two dollars for every patient on his panel list. During the war the payment was raised to twelve shillings and sixpence for each name on the panel list, it was a contract. Two years ago the Government said that the payment must be reduced as the cost of living had fallen and that twelve and sixpence was too much. The Minister of Health said that he was going to pay seven shillings and sixpence. The Committee of the British Medical Association said that the payment should be nine shillings and sixpence. The friendly societies said that six shillings was quite

enough for any doctor. The British Medical Association was willing to have arbitration, the Minister of Health said he had no use for arbitration, he had made up his mind that it was going to be seven and sixpence and the Association would have to take that. The British Medical Association replied that he might find himself without any panel doctors to work the Act. His retort was that the Medical men tumbled into the Act quickly enough when it was first introduced and he thought they would fall into line again.

The British Medical Association then sent out forms of resignation to all the panel doctors throughout the Kingdom and within ten days the Minister of Health received 96 per cent resignations. He was left with 4 per cent of the doctors to carry on the Act. He then said he thought arbitration was not a bad thing after all. A commission was formed and after many days the arbitration awarded nine shillings per patient and that award to remain in force for five years. A wonderful exhibit what organization can do.

When the New York delegation made known its intention to nominate for President Elect its favorite son Dr. Wendell C. Phillips, there was in the field a candidate from a middle western state which had not been honored with the presidency in forty years. We all recognized his ability and knew that he was deserving of the presidency, but not this year. The popularity of our candidate grew so rapidly that the name of the opposing candidate was not presented to the House and Dr. Phillips had the unusual honor of being elected unanimously by voice vote, President-Elect of the American Medical Association.

It is my sad duty to call your attention to the death of one of your delegates to the American Medical Association, Dr. Grover W. Wende, a former President of this Society. He will always be remembered by those who were privileged to know him as one worthy of honor and esteem. He was an eminent dermatologist and a man of wide scientific attainments. His delightful personality and sterling character won for him a host of devoted friends.

The kind consideration and helpful cooperation the speaker has always received from the members of the House of Delegates have lightened the work and made most pleasant the duty of presiding at sessions of this House.

Respectfully submitted,

E. ELIOT HARRIS, *Speaker*

March 15, 1926

The Reference Committee on the Speaker's Address recommended the adoption of the Speaker's suggestions regarding the manner of electing the Trustees and the Delegates to the American Medical Association. The election was held in accordance with those suggestions. See page 469.

recommendation that a Council of Physical Therapy be created so as to include all physical agents used therapeutically and that physicists be added to the personnel of the Council. The Board of Trustees has recently created such Council of Physical Therapy consisting of eleven members.

The work of the Council of Pharmacy and Chemistry always received the highest commendation from the House of Delegates but the last House emphasized its appreciation of the members of the Council who serve faithfully, unselfishly and without remuneration. The same Reference Committee recommended that in referring to quack remedies the term *nostrum* should be used instead of patent medicine. After explaining in detail why the use of the words patent medicines should be discontinued in the JOURNAL as synonymous of *nostrums* the recommendation was adopted without dissenting voice.

The Reference Committee's report on Council of Medical Education and Hospitals contains the following:

The problem of nurse education, which has become an acute one, shows small progress, in the Council's report, toward solution. The present course of nurse education is not providing nurses willing to do the ordinarily accepted duties and accept the ordinarily expected responsibilities of nursing the sick. As in the education of the medical student, science is overshadowing art in a profession which is largely, if not mainly, dependent on art for its successful practice. The plan of a joint committee of nine members from the nursing profession and three members from the medical profession may develop a solution, but, if so, much time will be occupied. It seems possible to your committee that the establishment of numerous small hospitals with their associated training schools for nurses may in a measure, at least in the smaller communities, offer a solution. In view of the importance of the problem in respect to the practical application of our professional duties, the committee believes that the survey recommended by the Council should have the support of the Association and would recommend that the Board of Trustees give such financial assistance as its judgment indicates. (29) (31)

President Pussey recommended that delegates to the House of Delegates of the American Medical Association should be elected in the preceding calendar year and not a few days before the meeting of the House. This would give new delegates an opportunity to familiarize themselves with the business coming before the House and such study would intensify their interest and responsibility in the discharge of their duties as delegates.

This recommendation of the President became more important when the House of Delegates adopted the following:

Resolved That members of Reference Committees of this House be appointed at least thirty days in advance of the Annual Session at which they are to serve.

The wisdom of the recommendation of President Pussey that Delegates to the American Medical Association should be elected in the pre-

ceding calendar year is exhibited at this Annual Meeting of our State Society where ten delegates will be elected just twenty days before the Annual Meeting at Dallas, Texas, and ten days after the appointment of reference committees as ordered by the House of Delegates.

The By-Laws of the American Medical Association provide that every third year there shall be a reapportionment of the delegates in proportion to the Membership of the Constituent Associations as recorded in the office of Secretary on April 1 of the year in which the apportionment is made. The New York State membership on April 1, 1925 was 10,396 and on the basis of one delegate to each 750 members or fraction thereof New York will be entitled to 14 delegates to serve in the next House of Delegates of the American Medical Association.

Section 18 of the New York State By-Laws provides that the delegates of the American Medical Association shall be elected in accordance with the Constitution and By-Laws of the American Medical Association. Section 2 of the By-Laws of the American Medical Association states:

"Delegates and Alternates from constituent associations shall be elected for two years. Constituent associations entitled to more than one representative shall elect them so that one-half as near as may be, shall be elected each year."

In order to conform to the By-Laws of both the American Medical Association and the State Society, I make the following recommendation.

Nominations shall be made for not less than double the number of delegates to be elected. There are ten delegates to be elected and at least twenty names should be placed in nomination.

The Ballots voted shall not contain more than ten names for delegates. In the order of the highest number of votes cast the first seven shall be declared elected as delegates for two years, the next three shall be declared as elected as delegates for one year, and the next seven as alternates for two years, and the next two as alternates for one year.

Provided the Governor signs the Act which will enable the House of Delegates to elect trustees, then the following resolution describing the manner of electing the five trustees is recommended for adoption by the House of Delegates.

Resolved, that nominations shall be made for at least five trustees. The trustee receiving the highest number of votes shall be elected for five years, the next highest for four years, the next highest for three years, the next highest for two years and the next highest for one year. In the event of a tie vote a new ballot shall be taken for the election of one of the nominees for the specific place for which such nominees are so tied.

The House of Delegates of the American Medical Association amended the By-Laws which abolished the section on Stomatology and

individuals, by the Metropolitan Life Insurance Company and by the State and local Departments of Health, and recognizing the importance of the State Society rising to an appreciation of its responsibilities in all public health matters passed the following resolution —

*Resolution Passed by the Executive Committee
January 14, 1926*

Resolved, That the President shall appoint a committee of ten, which shall include a member from the State Department, of Health, and from the State Charities Aid Association, the Director of the Academy of Medicine, the President of the State Homeopathic Society, the Chairman of the Committee on Public Health and Medical Education, the Chairman of the Committee on Economics, the President, and three other members of the Medical Society of the State of New York for the purpose of formulating a plan of campaign to make toxin-antitoxin available to every child in the State of New York and place the responsibility for its distribution upon the Medical Profession of the State in such a manner that every Practitioner of Medicine who wishes may have a part in its administration

COMMITTEE

Dr Matthias Nicoll Dr W Warren Britt
Dr Linsly R Williams Dr Frederick E Sondern
Mr Homer Folks Dr H G Weiskotten
Dr George F Raynor Dr William H Ross
Dr Charles A Gordon Dr Nathan B Van Etten

Details of the campaign are being developed in the Committee for Public Health and Medical Education in co-operation with the State Department of Health, and interested lay organizations. This campaign will be watched with the closest interest by the whole country and I trust that the Medical Society of the State of New York will live up to its possibilities

NURSING

The special Committee on Nursing has been constantly seeking a solution of a problem which is chiefly concerned with the bed side care of sick individuals. The Committee has tried to uncover basic reasons for unsatisfactory conditions by asking statements of fact from hospital heads, superintendents of nurses, registered nurses, student nurses, physicians, departments of Education and Public Welfare. All seem to admit that there is a problem. Many suggestions of remedy have been made, differing widely, but no real solution has been presented or agreed upon. The Executive Officer has worked night and day upon this problem and has collected an astonishing mass of material which will require a considerable time to digest

The attraction of public health, executive and industrial nursing service apparently is respon-

sible for the shortage of nurses for bed side work and seems to some observers to indicate necessity for a simpler curriculum to provide for a basic trained nurse who would be well equipped with a knowledge of the art of nursing—and that those who desired further knowledge of the sciences to equip themselves for special or executive positions, should be given post graduate opportunity

I recommend for your consideration the suggestion that all trained nurses should receive basic training in training schools for nurses connected with hospitals or sanitariums giving a course of at least two years and registered by the Regents of the University of the State of New York. The curriculum should be revised so as to provide clinical instruction, class room lectures and demonstrations to properly fit the student for their work as nurses in hospitals and in the home

Graduates after passing the State Examinations shall be registered by the Regents as Registered Nurses—Such registered nurses may become public health or other specially designated nurses after being properly admitted to Post Graduate Schools for nurses approved by the Board of Regents and passing the required examinations

LEGISLATION

Pursuant to the direction of the last House of Delegates I appointed a Committee to prepare amendments to the Medical Practice Act and this Committee under the able chairmanship of Dr John E Jennings of Kings, worked hard all summer to produce a bill which would satisfy every element of our Society. Perfection of course is unattainable and unanimity of opinion is impossible in such a highly individualistic group of workers as comprise the Medical Profession. While the great majority are reasonably satisfied with the work of this Committee an irreconcilable militant minority emphatically object, and we are again in the same position we held last year. If the bill fails of passage, I recommend that another committee be appointed and that we try again. The Workmens' Compensation bill prepared by a Special Committee is in committees of Senate and Assembly and is likely to lie over with most of the compensation matters until another year

Dr Shaw the Chairman of the Committee on Legislation and the Executive officer have conducted the work of the Committee and the Legislative Bureau in a very satisfactory manner have made many friends for the Society and have held legislative hearings at which impressive numbers of representatives of lay organizations have appeared in support of our measures

The Executive officer has justified his office and his tenure of it, by responding most actively to constant calls from every part of our organization. He has been a real liaison officer between members and County societies, district branches,

REPORT OF THE PRESIDENT

To the House of Delegates

GENTLEMEN

The Medical Society of the State of New York is concluding a year of unexampled activity which must be credited to an unusual stimulation of interest in new and developing ideas and which has been carried forward with a remarkable degree of team work between officers and committees

The Executive Committee of the Council at regular and special meetings has carefully studied the complexities arising from increased income, and from financial conditions which have gradually developed into problems. A budget and business sub-committee, apportioned income to expense at the beginning of the year and the Society has lived within its resources.

With growing activities dwarfing out-worn methods, and with the immediate prospect of removing our operating plants to the new Academy of Medicine, it would seem opportune therefore to recommend that a firm of efficiency and accounting experts be employed to study our needs and equip us with a complete modern business system.

The Journal has shown vigorous growth under the guidance of my successor in the Editorial Chair, Dr. Wightman and with a continuation of his able and enthusiastic efforts may well become one of the best medical Journals in the country. The increased income from advertising during this year gives reason to believe that our publications may not only become self supporting but may produce a balance of revenue that may be applied to other organization needs.

The society has been ably guided, counseled and defended for many years by Mr. George W. Whiteside whose name has become a talisman of comfort to all of our members. His remarkable talents have won recognition outside of our field and he has been obliged to accept a call to more lucrative opportunities. His charming personality has won a warm place in the esteem of all with whom he has come in contact and we congratulate him upon his preferment and wish him abundant success.

His former partner Mr. Lloyd Paul Stryker has succeeded him as our counsel and has already shown abilities as a speaker and adviser that amply justify this new relationship.

The question of legal defense and insurance is acute. All of our members should be defended to the limit of our ability. The matter of indemnity is a personal matter which touches the financial existence of each one of us. He is venturesome indeed who dares to practice medicine without it. Fifty-three per cent of our members carry insurance with the Aetna Insurance Company. A few retired members who do not practice do not need insurance. We do not know how many are

insured in other Companies but a safe estimate indicates that twenty per cent of our members carry no protection—are taking a gambler's chance with everything they possess and if many suits are brought against them may seriously involve the Society's finances.

A special committee has been carefully studying these questions for several months and will be prepared to report to the next Council.

Very few of you know the amount of work done by the Committee Chairmen. You observe the finished product and dismiss it with approval or disapproval, you do not know that the Chairman of the Committee on Scientific Work has been developing his program during the entire year and has already to offer you one of the best scientific programs that you have ever seen as the result of daily thought and correspondence. The speakers have been so carefully selected that they must feel themselves honored in being invited and those who co-operate in the Syphilis Demonstration must feel a great satisfaction in participating in an unprecedented exhibition.

The Chairman of the Committee on Economics has given earnest study to our social and economic problems. He has traveled all over the State, has had many conferences with State Departments, has visited County societies, has assisted and stimulated the work of committees, assisted the Chairman of the Special Committee on Workmen's Compensation Laws. Dr. Hourigan, in preparing the bills now before the Legislature, has assisted the Special Committee on Nursing, has warmly advocated periodic health examinations, and has labored assiduously to waken the interest of the general practitioner in his own problems.

The Committee on Public Health and Medical Education as was expected has carried on a very extraordinary piece of work. The Chairman has given hours of every day in the year to the development of the plan for carrying post graduate Education to the doctor at places convenient to his home. Besides its Educational value, this work has stimulated State-wide interest in the State Society and a realization of the value of membership in the organization. The co-operation of the Health Department and the interest of lay organizations have been enlisted in a surprising degree and an unlimited field is opening with a most promising prospect.

I recommend that this work be heartily endorsed by this House and that the Committee be assured of every possible assistance.

PREVENTIVE MEDICINE

The Executive Committee of the Council appreciating the importance of a definite proposal for carrying out a preventive medicine campaign endorsed by the State Charities Aid, by interested

REPORT OF THE SECRETARY

To the House of Delegates

GENTLEMEN

Among the many duties imposed upon the Secretary is that of submitting an annual report to the House of Delegates. Such report must be necessarily more or less statistical and deal mainly with the business phase of the Society's affairs.

When the Secretary, after long and insistent persuasion, consented to assume office, he did so in full knowledge of the fact that his selection was due solely to his training and experience in secretarial work. It is for this reason that he departs from the time honored form of report and presents a brief survey of existing conditions and needs. He makes no recommendations, preferring to make suggestions of changes which, in his opinion, might be of benefit to the Society and which might serve for the guidance of a possible committee on reorganization. He would ask, however, favorable consideration of the recommendations regarding these matters which are incorporated in the report of the President.

There is nothing in this report that is intended for, or that should be construed as, criticism of any individual or individuals, it is the "system" and the "system" only, that is under discussion. Furthermore, it should be distinctly understood that it concerns the business side and not the policies of the Society. It is the conduct of the affairs of his own office and the relation it bears to the component County Societies, the officers and the various committees that are commented upon.

To criticize or even comment without the suggestion of remedy is unfair and unwise and if not actually destructive is, to say the least, productive of more pronounced uncertainty and disorder.

The Secretary therefore begs to submit the following:

THE SOCIETY IN GENERAL

The basic organization of the Society is as near perfection as possible and its Constitution and By-Laws are second to none.

During the past few years, it has shown a steady growth in membership, has more than doubled its income, has taken on many new activities of interest and value to the profession and to the public, and has won its way to a position of importance and influence in the State. Never have its committees functioned with such enthusiasm and earnest endeavor and never have the results been more gratifying.

If these statements are true, and no one can deny that they are, wherein lies the reason for critical comment? What is lacking?

The reason lies in the indisputable fact that the

Society, on account of its increased income and the adoption of activities which stretch far beyond the confines of strictly medical work and involve expenditures of considerable amount, has become, in a measure, a business as well as a membership corporation. As a business corporation, it can not maintain a healthy growth without adopting a policy of business efficiency and modern methods of office conduct and control. These are the lacking elements.

The Society has grown but the methods of conducting its affairs have not kept pace with the growth, they being today substantially the same as those of years ago. With the exception of the establishment of an Executive Committee and the raising of the dues, no attempt has been made to reorganize these methods in accordance with modern progress or with the increased needs of the Society. There consequently exists a constant and confusing overlapping of duties and authority and no real co-ordination.

This has been the fault of no one in particular but has been brought about by force of habit, by a reluctance to shake off the trammels of precedent and tradition and by a dread of incurring extra expense.

These statements are plain matters of fact born out both by the records and the lack of records and are very mildly put. In fact, were it not for the loyalty, the conscientious care and tireless work of the Business Manager, Miss Baldwin, the machinery would have ceased to function and fallen to pieces long ago.

THE SOCIETY'S OFFICE

The Secretary of the Society, who in accordance with the By-Laws, is also Secretary of the Council, the Executive Committee, and the Censors and a member of all standing committees is essentially the business officer and should be recognized as the head of the office *de facto* as well as *de jure*.

He should familiarize himself with the conduct of the office and keep in intimate touch with the affairs of the Society as upon him devolves the responsibility of any failure or neglect. The details should be left to the Business Manager and her assistants but under his constant supervision.

There are at present three main activities carried on in the office, which for convenience may be designated as Secretarial, Financial and Editorial. It would contribute greatly to the future welfare of the Society if these activities were made separate departments each under its own staff but correlating through the Business Manager.

The present quarters are inadequate and much of the office equipment obsolete. This cannot be remedied until the quarters in the new Academy

committees and officers in the general promotion of intelligent understanding of our problems and in the collection of masses of information and opinion from many sources for the use of committees on nursing, legislation, scientific progress, public health and education, and economics. He has been successful in winning for us many friends among legislators and lay organizations. His fine educational equipment, and his growing experience in a developing office are qualifying him for great future effectiveness.

PUBLIC HEALTH

This year has been marked by an unusual appreciation of the importance of public health and of the basic understanding that it can be carried to its highest possibilities only by the earnest co-operation of all physicians. Every physician should constitute himself a guardian of the health of his community as affecting the people who place themselves under his care. He should merge his individualism into county organizations, and assert his intelligent leadership in all public health activities.

The Governor of the State has publicly and privately consistently stressed the value of the humanities and the relationship of the medical profession to them. Lay organizations have come to realize that they can not attain their ideals without such co-operation. The State Committee on Tuberculosis of the State Charities Aid Association has by formal resolution elected the succeeding Presidents of the State Society to membership upon their Executive Committee.

The Commissioner of Health has shown a consistent advocacy of the value of organized medicine as exemplified by the State Society. He invited the President to address the Conference of Health Officers and Public Health nurses in Saratoga in June and has continually given us the warmest support.

The Department of Labor through the Industrial Commissioner has invited the sympathetic interest of the Society in their problems.

The President and Secretary developed the medical program of the Safety Congress at Syracuse and presided at two sessions, at the same time collaborating with the State Society of

Industrial Physicians and establishing mutually helpful cordial relations.

TRI-STATE CONFERENCE

A conference of the Presidents and Secretaries of the Medical Societies of the State of New Jersey, Pennsylvania and New York and the Editors of the State Medical Journals was called on February twenty-sixth with the idea of discussing questions of mutual interest and importance to contiguous States. The questions discussed were Post Graduate Education carried to the Doctor in the field, Periodic Health Examination, Malpractice Defense and Indemnity, and Campaigns for the promotion of Preventive Medicine, and revealed a mutually helpful spirit among the officials of organized medicine in these three States. I recommend that these Tri State Conferences be continued and encouraged by the approval of the House of Delegates.

DR. A. WALTER SUITER AND DR. GROVER WENDE

During the year two former Presidents have been taken from us by the grim hand of death. Dr. A. Walter Suiter, an enthusiastic officer who served the Society with merit and devotion and who gave concrete evidence of his love for the Society by bequeathing to the Society a part of his residuary estate, and Dr. Grover Wendt whose brilliant career met untimely conclusion by an immediately fatal accident on February ninth. Dr. Wendt was well known and beloved by the members of this house and his passing out of our lives leaves us with a sense of personal loss.

I recommend that when this House of Delegates adjourn it does so in honor of Dr. A. Walter Suiter and Dr. Grover W. Wendt.

I am deeply appreciative of the honor and privilege of serving organized medicine as your President and I am grateful for the unfailing support given me by every officer and committeeman in the Society.

The future is a brilliant one and I am confident that the Medical Society of the State of New York will realize its possibilities.

N. B. VAN ETEN, President

March 15, 1926

The Reference Committee approved the recommendation that a modern business system be instituted in the office of the State Society. See pages 463 and 464.

The proposal to present Mr. Whiteside, former Counsel, with a set of engrossed resolutions was approved. Page 464.

Participation in the Tri-State Conference was approved. See page 463.

The manner of conducting the JOURNAL was approved. See page 464.

The suggestions regarding the recognition of nurses after a basic training of two years, were approved. See page 459.

of the office to advise with the Secretary on matters requiring immediate attention

The list of honor counties whose membership shows all dues paid for the year is as follows: Columbia, Fulton, Greene, Orleans, Rensselaer, Richmond, Rockland, Schenectady, Schuyler and Yates

The Secretary takes pleasure in publicly expressing his thanks to the Business Manager for her valuable assistance and for her earnest and effective work, to the Executive Officer for his hearty support and willing co-operation, and to the District Branches for the cordial greeting and hospitality extended to him at the District Meetings. To the President, he extends his sincere thanks for and appreciation of his helpful advice, his many acts and words of kindness and his never-failing courtesy. They entered upon their duties as acquaintances, they part as friends.

The Report of the Secretary was accepted without recommendations. See page 463

See also the approval of the recommendations of the President regarding the reorganization of the central office, page 464

For his fellow members of the Executive Committee, the Secretary entertains deep feelings of friendship and admiration. Their loyalty to the ideals of the profession and devotion to duty, their sacrifice of time and practice for the welfare of the Society should evoke feelings of thankfulness and gratitude.

The Secretary records with sorrow the deaths of Grover W. Wende and A. Walter Suiter, Ex-Presidents of the Society, and Wm. H. Purdy, a former Vice-President and for many years a member of the House of Delegates. In memory of Dr. Wende and D. Suiter appropriate action has been taken by the Council. If further tribute should be taken by the House, the name of Dr. Purdy should be included.

Respectfully submitted,

D. S. DOUGHERTY,

Secretary

March 15, 1926

REPORT OF THE COUNCIL

To the House of Delegates

GENTLEMEN:

The Council has the honor of presenting the following report:

Four meetings have been held, in Syracuse on May 14 and in New York City on June 3, October 29, and December 10.

The minutes of these meetings have been published in the JOURNAL and it would be needless repetition to incorporate them in this report.

In accordance with the provision of the By-Laws governing the constitution of an Executive Committee, W. H. Ross, F. H. Flaherty, E. Eliot Harris, G. M. Fisher and J. A. Card were elected to serve with the President and Secretary on such Committee.

The Executive Committee has held nine meetings and has twice submitted a referendum to the Council on matters pertaining to the Medical Practice Act.

The Special Committee appointed in accordance with the resolution of the House of Delegates to draw up a Medical Practice Act reported to the Executive Committee and, on referendum vote, this report was adopted by the Council. On the second referendum vote, the Bill as amended by the Board of Regents was approved.

The Legal Counsel, having made new professional affiliations, was compelled to resign his

office and the resignation was accepted with sincere regret and appropriate resolutions.

In order that there might be no confusion or delay in the work of the Legal Department, the Executive Committee appointed as Counsel, Mr. Lloyd P. Stryker, who as Mr. Whiteside's partner has handled much of the Society's work. This appointment was made contingent upon the future action of the Council.

The Committee also appointed Drs. Ross and Card a sub-committee to make an intensive study of the work of the Department.

The resignation of Dr. James N. Vander Veer having been accepted with regret, the Executive Committee, on nomination of the President, appointed Dr. Henry L. K. Shaw, Chairman of the Committee on Legislation.

The following appointments were made: E. R. Cunniffe, Chairman of Committee on Arrangements; O. S. Wightman, Editor-in-Chief; Frank Overton, Executive Editor; Joseph S. Lawrence, Executive Officer; J. C. Jennings, Chairman of Special Committee with power to draft a Medical Practice Act; E. Eliot Harris, W. H. Ross and D. S. Dougherty, as Publication Committee.

Two conferences with the officers of the Medical Society of the State of New Jersey and of the State of Pennsylvania have been held at which matters of mutual interest were discussed.

of Medicine building are ready for occupancy in the fall. A complete modern filing system should be installed and kept up-to-date by a competent clerk. All old records should be carefully collated and filed and a history of the Society thus preserved.

The Secretary is informed that many important documents are in the hands of ex-presidents, former committee chairmen and others, these should be forwarded to the Secretary for filing with the permanent records.

REPORTS AND COMMUNICATIONS

In order to expedite business and promote efficiency, all reports of officers and committees should be sent to the office and be in the hands of the Secretary not later than twenty-four hours before the meeting of the body to which they are to be presented. In especially important matters requiring careful study, sufficient time for the making and distribution of individual copies should be allowed. This rule should be rigidly observed not only by committees but by all officers, the President not excepted. The President should insist that reports be sent in this manner and not sent to him personally. The dignity of his office should be preserved.

For the purpose of preserving orderly methods and correct records, all official communications should go through the Society's office and from there be distributed to the proper officer or committee. If this method of correspondence were adopted by the County President and Secretaries, much of the present overlapping and confusion would be avoided. There must be a properly organized channel for communications and this can be maintained only through the State Secretary. This does not apply to communications on legislative matters which should be sent to the Legislative Bureau at 51 Chapel Street, Albany.

Resolutions offered in the House of Delegates or to the Council should be in writing and in duplicate, one copy for the reference committee and one for the official files.

Where at all possible, resolutions presented to the House should be acted upon at once. The habit of referring everything to the Council and thence to the Executive Committee serves to clog the wheels of progress with inconsequential matters and causes many important ones to be neglected.

THE EXECUTIVE OFFICER

This officer should be in closer official touch with the Secretary and upon him should devolve certain duties which now, according to the By-Laws, are delegated to the Secretary, a proper collaboration would be of benefit to both and to the Society.

His duties which, with the exception of his legislative work, appear, even to him, indefinite

and nondescript, should be clearly defined and his office put upon a more solid and dignified basis.

LEGAL DEPARTMENT

The only point of contact with this department is that which concerns the proper recording of all transactions of the Legal Counsel with the Society. All data relating to malpractice defense and all written legal opinions rendered by the Counsel should be kept on file.

All requests for malpractice defense should be made through the Secretary who, after investigating the standing of the applicant and making the proper record, should forward such request to the Counsel. A record of the subsequent conduct and disposal of the case should be filed with the Secretary.

BOARD OF TRUSTEES

The Secretary is firmly convinced that the Amendment providing for the election of a Board of Trustees should be adopted.

The Society now enjoys an income of over one hundred thousand dollars and there is urgent need of a Board of this character to take charge of and invest the funds and carefully supervise their expenditure. A Council or an Executive Committee, the complexion of which changes annually, should not have this financial responsibility thrust upon them and should not be expected to assume the duties of custodians of funds. With this annual change and the consequent shifting of responsibility, careless waste and extravagance may creep in without being the fault of any one except those who neglected to adopt the safeguards of business efficiency and modern financial methods.

This amendment concerns the finances of the Society and in no way affects its policies or economic activities.

MEMBERSHIP STATISTICS

Membership, Dec 31, 1924	10,032	
New Members, 1925	595	
Reinstated Members, 1925	240	
		10,867
Deaths	155	
Resigned	83	238
		10,629
Dropped for non-payment of dues, Dec 31, 1925	545	
		10,084
Elected after Oct 1, 1925, and credited as of 1926	215	
Membership, Jan 1, 1926		10,299

As the members of the Executive Committee are apt to reside in widely separated sections of the state and as the Committee meets but once a month, there should be appointed from its members a small subcommittee residing in the vicinity

REPORT OF THE COMMITTEE ON PUBLIC HEALTH AND MEDICAL EDUCATION AND THE COMMITTEE ON POST-GRADUATE MEDICAL INSTRUCTION

To the House of Delegates

GENTLEMEN

The Committee on Public Health and Medical Education and the Committee on Post-Graduate Medical Instruction have functioned as one committee.

The steadily increasing group consciousness of organized medicine, and its growing desire to assume leadership in the solution of the great problems of public health, fix upon us a very definite responsibility

In the continuous education of the practising physician we see the greatest single contribution that organized medicine can make. Most of our activity has been in that field.

In no other State where graduate education is being done do conditions parallel New York. Our problem is unique. We have attempted to solve it in our way, slowly and conservatively, yet making use of available resources.

The geographical makeup of our committee was a distinct advantage in our preliminary survey of the State, but District Branch organization was soon found to be unwieldy, in only one district has it been possible to work out the problem that way.

This survey was followed by a questionnaire to all the counties, and our early work was based upon its information.

THE QUESTIONNAIRE

- 1 What is your County Society doing in the line of graduate teaching?
- 2 Has your Society a committee on "Graduate Medical Education?" If so, who is chairman?
- 3 Has your Society any plans, tentative or otherwise, with regard to graduate teaching?
- 4 What facilities exist in your county to conduct extension courses such as meeting places for lectures, lantern, motion picture machine, hospitals, etc?
- 5 Are there geographical divisions in your county which make it difficult to assemble at a central place or which would make it necessary in any plan to provide for your Society and geographical groups? If so, what are they?
- 6 What in your opinion would be attractive to your members in graduate teaching?
- 7 Has your Society a Public Health Committee? Who is chairman?
- 8 How many physicians in your county? How many are members of the County Society? Are most of them in general practice? Under average conditions what would be the best months of the year for extension work? How often and at what

time of day would lectures or clinics be best held?

- 9 Are there any medical societies of importance, special or otherwise, in your county aside from the County Society?
- 10 Have you any suggestions or queries with respect to graduate teaching or public health activities which you wish to submit to the committee?
- 11 Are there in your membership physicians who are able and would be willing to take teaching assignments? If so, please list them.
- 12 Should physicians of the county who are not members of the Medical Society of the State of New York be included?

Correspondence has been with the officers of county societies, and our plan of organization has slowly evolved as difficulties presented themselves.

The office of the Committee is in the Library Building of the Medical Society of the County of Kings, which generously gives us space and makes no charge for the valuable assistance given our Committee by Dr A N Thomson, Secretary of its Committee on Public Health. A high class secretarial help is provided at the cost only of hourly stenographic service, and a heavy correspondence has been handled. A pin map is used to indicate the progress of our work, and a very complete file of county educational activity has been developed.

The task has demanded an unusual amount of time and effort. Arrangements of courses or single talks involves consideration of time, weather, season, costs, needs, wants, previous courses, assignment of lecturers, postponements, cancellations, and follow-up of courses given.

For the use of our Committee the Council appropriated \$5,000, of which about \$2,500 has been expended for secretarial service and supplies, files, telephone calls and telegrams, films, traveling expenses of teachers, in a few cases small honoraria, and the distribution of the A M A Manual.

The State Department of Health early offered their full co-operation, and placed the services of their regional consultants at our disposal. Courses in obstetrics and pediatrics of six lectures each were offered to county societies as "Given by our Committee with the co-operation of the State Department of Health, practical, and as far as possible clinical."

Our spring program in obstetrics and pediatrics has been arranged largely through the efforts of Dr Dean, whose services were placed at the disposal of the Committee by the State Department of Health for a period of five weeks. During this time he visited the field and reported to

The Council and its Executive Committee have acted upon the resolutions and recommendations referred to them with as much care and consideration as within human possibility to give them but, in many cases, absence of proper data and the arguments pro and con that could have

been presented on the floor of the House, has made correct analysis and study extremely difficult

Respectfully submitted for The Council,

D S DOUGHERTY,
Secretary

REPORT OF THE COMMITTEE ON PUBLICATION

To the Executive Committee of the Council

GENTLEMEN

JOURNAL

In accordance with a resolution of the Executive Committee, passed on May 14, 1925, "that the President appoint a Committee on Publication," the President appointed Dr E Eliot Harris, Chairman, Dr Daniel S Dougherty and Dr William H Ross

At the same meeting Dr Orrin Sage Wightman was unanimously elected Editor-in-Chief of the New York State Journal of Medicine

The Council at a meeting held on June 3, 1925, re-appointed Dr Frank Overton Executive Editor

The Committee on Publication and the Editorial Board have held frequent meetings at which they have formed the policies to be carried out in the publication of the Journal

After careful consideration it was decided to publish the Journal twice a month throughout the year, and to add a department of Medical Progress under the editorship of Dr Thomas L Stedman, which would bring to the members the latest advances in scientific medicine

A full time Advertising Manager was engaged with the result that more than \$7,000 worth of new advertising has been added to the Journal since October 1st, and this promises to be greatly increased before the end of 1926

Every effort has been made to broaden the editorial policy, to create new and constructive departments and to elevate the standard of the scientific articles

The Editorial Board feel that they have only just begun their work and have many plans for the betterment and development of the Journal during the years to come

The cost of the Journal to the Society is only about \$3,500 more than in previous years in spite of the fact that there have been four more issues

published than in 1924 and a larger edition owing to the increase in membership

1925 RECEIPTS AND EXPENSES, EXCLUSIVE OF STENOGRAPHERS' SALARIES AND INCIDENTALS

RECEIPTS	
Advertisements and sales	\$18,802.17
EXPENSES	
Salary of Editors	5,150.00
Printing and Postage	27,675.93
Commissions	4,287.42

The resolution of the House of Delegates that only Medical Preparations, which have been approved by the Council on Pharmacy and Chemistry of the American Medical Association, continues to be the guide in the selection of advertisements of medical preparations used either internally or externally

DIRECTORY

The value of the Directory has been greatly enhanced by including the list of the hospitals of the state, which had been temporarily discontinued owing to war time conditions

This with the addition of the alphabetical list, which was restored in 1924, brings the Directory almost up to the high mark which had been attained in earlier editions

There is an increase of revenue of over \$2,000 in receipts from advertisements, and in spite of an increase in the cost of publication, owing to the addition of seventy-three pages and a five-hundred increase in the number of copies published, the Directory shows a decrease in the cost to the Society of over \$800

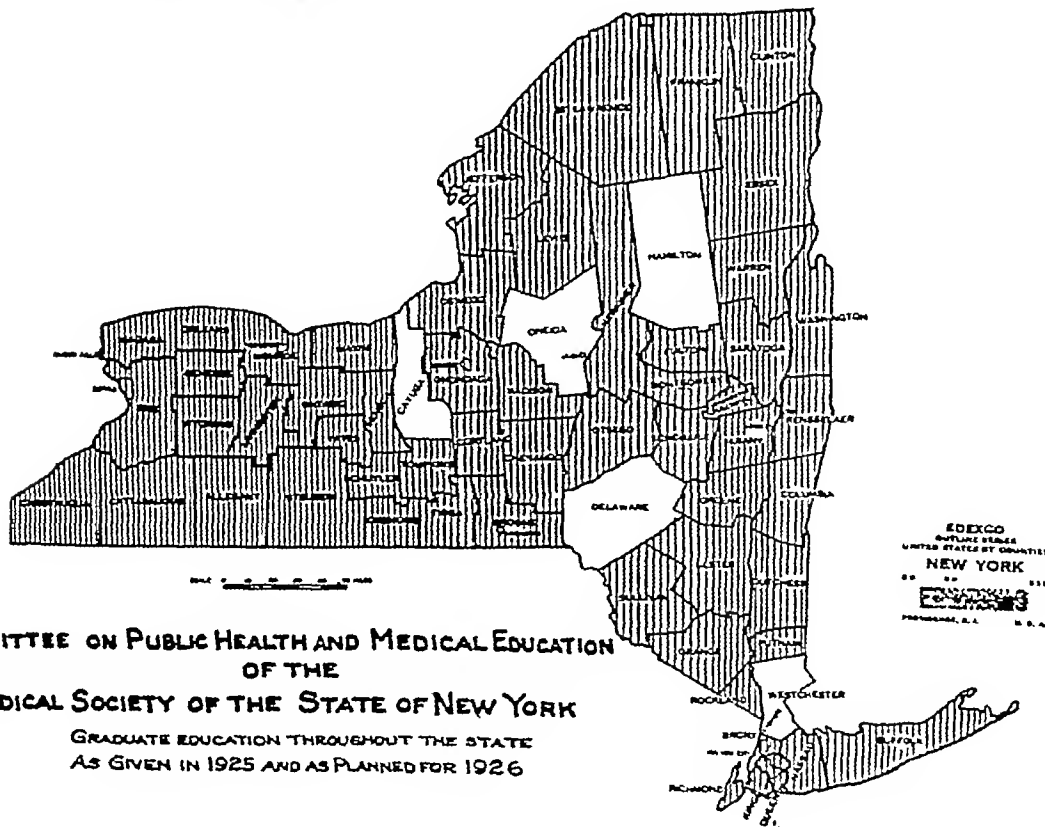
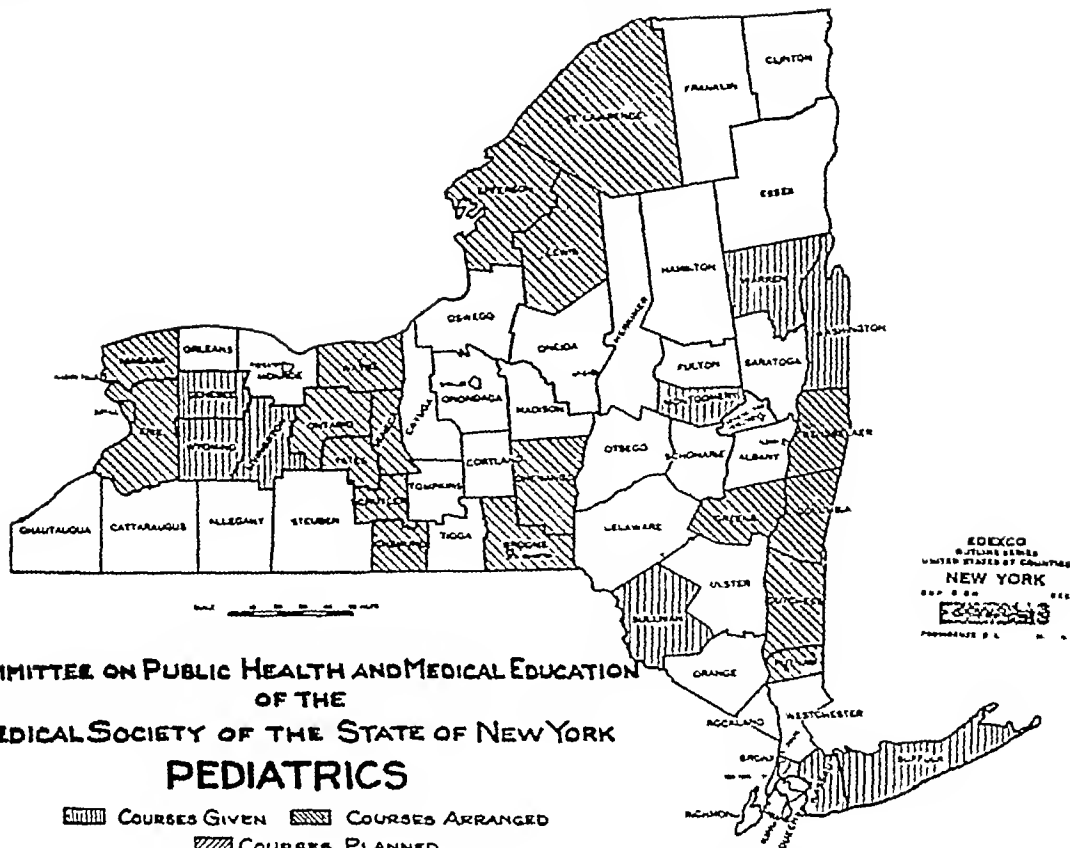
1925 RECEIPTS AND EXPENSES, EXCLUSIVE OF STENOGRAPHERS' SALARIES AND INCIDENTALS

RECEIPTS	
Advertisements and sales	\$8,637.50
EXPENSES	
Printing, Postage and Delivery	12,401.77
Commissions	1,146.25

Respectfully submitted,
E ELIOT HARRIS, Chairman

March 15, 1926

Comments on the JOURNAL were made by the President and were approved by the Reference Committee and the House of Delegates See page 420



our Committee Only in this way can arrangements for a large number of courses be made effective in a reasonable length of time The service and warm co-operation of the State Department of Health has been invaluable

Courses in obstetrics have been given in the Counties of Jefferson, St Lawrence, Chemung, Steuben (Hornell), Fulton, and Herkimer, and arrangements have been definitely made for the Counties of Cattaraugus, Chautauqua, Clinton, Franklin, Essex, Nassau, Orange, Otsego, Schoharie, Rockland, Warren, Washington, and Ulster Dates are not yet set, but courses will probably be given in Albany, Tioga, Steuben (Corning), Cortland, Tompkins, and Orleans

Courses in pediatrics have been given in the Counties of Suffolk, Washington, Warren, Genesee, Livingston, Wyoming, Sullivan, and Nassau, and courses are definitely arranged for the Counties of Broome, Chenango, Chemung, Steuben (Hornell), Schuyler, Dutchess-Putnam, Columbia, Greene, Jefferson, St Lawrence, Lewis, Niagara, Erie, Ontario, Wayne, Seneca, Yates, and Rensselaer Arrangements are being made for Albany, Saratoga, and Steuben (Corning)

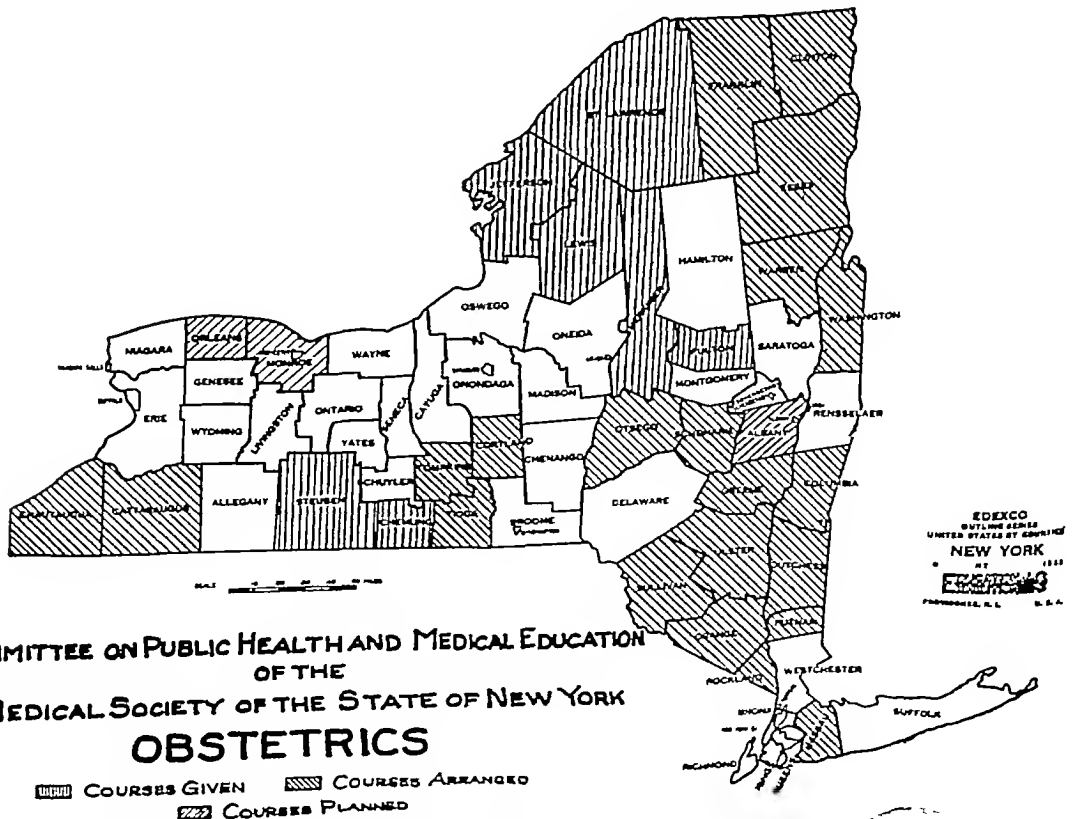
From various sources we have compiled a list of men willing and able to teach, and from this group we have provided single talks, or groups of talks, and clinical demonstrations for the Counties of Allegany, Montgomery, Sullivan, Suffolk, Orange, Otsego, Dutchess-Putnam, and

Nassau In a general way these topics covered heart, kidney, skin, hernia, tuberculosis, congenital syphilis, gastro-enterology and pediatrics. We have numerous requests for special clinics, lectures, and courses, and we have supplied the demand as far as possible We prefer, however, to provide speakers for times apart from regular county society meetings, hoping to supplement rather than supplant what the society has been doing

In our spring program a course on Diseases of the Chest has been arranged for Saratoga, a course on Nephritis and Hypertension for Oswego and Onondaga, a course on Nephritis, Diabetes and Hypertension for Montgomery These courses will also be available for other county societies

In November, 1925, we mailed to every member of the State Society a copy of the A M A Manual on Periodic Health Examinations This was a new edition of 12,000 copies with a special cover stating that "The Committee on Public Health and Medical Education of the Medical Society of the State of New York presents to every member of the State Society this Manual as one feature of its General Program for Health and Education" The suggestion of the Committee that the A M A undertake this State wide method of distribution has caused other states to follow our example

We have prepared an exhibit for the annual meeting of the Medical Society of the State of



REPORT OF COMMITTEE ON LEGISLATION

To the House of Delegates

GENTLEMEN

Your Committee on Legislation begs leave to make the following report

During the late summer and fall the Committee made the usual preparations by informing itself as to the names of the chairmen of the Legislative Committees of the County Societies, the personnel of the legislature and also, through communications, endeavored to learn how Medical Societies in other states conducted their legislative work. Some exceedingly interesting and valuable suggestions were received from other states, particularly endorsing an idea that we were considering with favor, that of stimulating cooperation with lay organizations having an interest in health matters. We were informed that a program in which welfare and civic organizations took a part, has been particularly effective in California, Washington and Oregon during the last five years.

Since the principal legislative interest that we were to have during the coming year was the enactment into law of an amendment to the Medical Practice Act which was being prepared by the Special Committee appointed in accordance with the wishes of the House of Delegates and the enactment of an amendment to the Workmen's Compensation Law along the lines taken by Assemblyman Miller's medical bill of last year, we began such activities as we thought might bring about a cooperative interest from certain welfare organizations, particularly the State Charities Aid Association, which, through its County Committees on Tuberculosis and Public Health, exerts a powerful influence for advancement of health in every community throughout the State.

We were surprised to find that many lay groups were eager that our amendment should be enacted and a number of civic organizations willingly studied our program and have since lent us their support.

After the Committee's amendment was accepted by the Council and the State Department of Education, we were encouraged through our contacts in the legislature to believe that our efforts this year would meet with success. The chiropractic bill, on the other hand, did not seem this year to bring out as much interest as in previous years. Hearings on the two bills were arranged for separate days. We thought this advisable, because it prevented a confusion of the two bills which seemed to prevail in past years and to have been encouraged by the chiropractors. This year the chiropractors were obliged to speak of the merits of their own bill and did not have the opportunity of spending all of their time in denouncing the Medical Practice Act. This analysis brought out the fact that the

chiropractors did not have a very strong constructive argument, while on the contrary, at the hearing of the Medical Practice Act, the discussions were of an unusually high plane and markedly constructive in character.

The Assembly Public Health Committee has reported out the Medical Practice bill and the Esmond chiropractic bill and probably by the time this report is submitted, the Assembly will have taken action on these two bills. The bills are a little slower in coming out of the Public Health Committee in the Senate, but will very likely be before that Chamber by the time this report is read.

The influence of activity on the part of the lay organizations is quite evident in the Capitol. Long petitions are being received by legislators, signed by hundreds of prominent laymen, requesting favorable action on the Medical Practice Act. Legislators report that the demand for the enactment of the chiropractic bill has markedly fallen off since last year. Another influential organization that has come to our assistance this year is the American Association for Medical Progress, whose director appeared with a very powerful argument at the hearing of the chiropractic bill.

Our Trustee Bill had an uneventful career, it passed the Assembly first and finally the Senate, and has gone to the Governor for signature at this writing. Another bill in which we have a vital interest is an amendment to the General Laws, providing regulations for the establishment and conduct of nurse registries. This bill was introduced in the Assembly within the last ten days.

There has been the usual number of fantastic bills presented this year, among them are two chiropractic bills, two drugless therapy bills, the chiropody and optometry bills requesting the privilege of using the title "doctor", a bill asking for the licensing and organization of manufacturers of splints, a bill calling for organization and licensing of hairdressers, the usual sheaf of amendments to the Workmen's Compensation Law appeared and most of them will be dropped in Committee. Probably few changes in the Workmen's Compensation Law will be authorized this year. The legislature seems to be inclined to appoint a Commission to study the Workmen's Compensation Laws and other labor laws, in order that in another year the amendments may be introduced in accordance with some constructive program. It is quite possible that the Miller medical reorganization bill will be laid aside until this Commission's report is submitted.

Bills with a socialistic tendency were not wanting. The health insurance bill of four years ago was reintroduced, but got no farther than the Committee in the Assembly. A bill providing that all school children's eyes should be examined

interest in the question as a whole and a sincere desire to help solve the problem. The Chairman of the Committee made contact with many doctors, some more and many less familiar with workings of the Compensation activities, in an endeavor to secure every possible viewpoint on the subject.

After securing a composite picture of the minds of the profession on the whole problem, and sensing a definite, decided expression for immediate relief, the Chairman of the Committee felt the urge to attempt to put into form for legal enactment, those suggestions which lend themselves to such uses. A tentative bill was formulated, incorporating all the important provisions that were felt to be necessary in a constructive amendment to the Compensation Law. Copies of the tentative bill were then sent broadcast throughout the State with an invitation for constructive criticism. There was a gratifying response to this invitation. Many of the doctors to whom copies of the letter and bill were sent were good enough to say that the issues were so sharply and accurately defined that we should lose no time in putting them into form for specific consideration, and, after they had been altered or amended in conformity with the suggestions and criticism of the profession, they should be presented to the legislature. This suggestion was favorably considered because of its many constructive, progressive possibilities. A meeting of the Special Committee appointed by President Van Etten was called at Syracuse. The tentative bill as drafted was thoroughly considered and adopted as the suggested modifications of existing Compensation Law, and this report sent to the members of the Council through Dr. Britt, with recommendations that they take immediate steps to introduce this bill in the legislature. Probably the outstanding idea in the mind of the Committee as to the effect that would be obtained, and which they desired in the introduction of this bill, was the criticism it would receive and the opposition to it that would be shown. These results furnished your Committee would be added, necessary, and essential information that would aid you in outlining future activities along this line. It was thoroughly understood by men of experience that there would be no possibility, nor was there any wish for the passage of this bill during this legislation session. The first complete draft of the bill was introduced by Representative Miller and Senator Truman.

Dr. Shaw, Chairman of the Legislative Committee, was especially helpful to the Committee in forwarding to the Chairman certain suggestions which he felt necessary to perfect the bill from the standpoint of a physician. The necessary changes were made to meet these points and the bill, in its final draft, was presented by your Chairman at the conference of County Legislative Chairmen held in Albany, February 10th.

This conference unanimously voted to recommend the support of this bill by the State Medical Society.

During the months that this problem has been studied by your Committee, the Chairman, Dr. Hourigan, has had many invitations to address the County Medical Societies on the subject of the proposed bill. It was physically impossible to accept all these invitations. He was able to accept invitations from the County of Erie, Monroe and Oswego, and these Societies have gone on record as unanimously in favor of the measure.

On February 24th, a hearing was held before the joint Committee on Labor and Industry of the Senate and Assembly on this bill. As evidence of the interest aroused in the whole subject of Compensation and the various bills presented, was the large attendance at this hearing necessitating the use of the Senate Chamber to accommodate all those who appeared. Several members of your Committee made a perfunctory appearance before this Committee, offering only sufficient explanation of the bill to draw the fire of the opposition. The great value of this hearing to your Committee lay in the fact that representation of the opposition to this measure voiced specific objections. The objections presented at this hearing convinced your Committee that there is no real argument against the proposed measure that is based on its merits. The speakers in opposition used only the argument that the medical profession were attempting to make themselves final authority on medical questions. Far from being a real objection to the bill this constitutes the main vital reason for formulating such an amendment to the Compensation Law. This bill would endanger the dominant position of certain vested, predatory interest which have entrenched themselves through long years of administration of the present Compensation Law. This condition has been made possible by the supine attitude of the medical profession in its relation to a problem which is of vital interest. We would definitely and urgently avow any desire to force our ideas upon the profession. The State Medical Society for years has appointed Committees to study this problem, the last two of which Committees have reported back to the House of Delegates their inability to reach any solution of the problem. Your present Committee felt that it was of the utmost importance that some definite, concrete legislation be brought forward, not with the idea of having such legislation passed at this session but recognizing the fact that the profession of the State as well as other interests concerned are badly in need of education on the whole problem of the Workmen's Compensation Law. The bill drafted by your Committee and now before the legislature, is only a step in the right direction of eliminating undesirable provisions of the present law. We feel that the first fundamental principle to be

by optometrists appointed by the Boards of Education, and another bill which would supply all children with eye glasses free of charge will both likely remain in Committee. The anti-vivisection bill has appeared within the last two or three days. The amendment is limited this year to preventing experiments upon living dogs.

The birth control bill has not yet appeared.

Your Committee wants particularly to express its appreciation of the cooperation received from the County Chairmen. The attendance at the conference of County Chairmen was practically as extensive as last year, regardless of the fact that one of the worst blizzards of the season was raging in the southeastern part of the State on that day. We would suggest that County Societies make some effort to have the information which we sent out through our weekly bulletins, spread among their members. We were amazed several times during the winter to have physicians tell us that they knew nothing about what was going on at Albany, they did not even know that the State Society was particularly interested in an amendment to the Medical Practice Act. It would seem to us that the County Societies could probably arrange for one or two special meetings during the time of the session of the legislature, for the purpose of hearing from the local chairman of the Legislative Committee what is transpiring at Albany. Such program would prevent one Society from getting out of step with a ma-

ajority of the Societies in supporting or opposing proposed legislation. It is exceedingly difficult, if not absolutely impossible, in matters of legislation, to foretell what one's attitude will permanently be toward any but the most vicious bills, because in many instances the bill as originally drawn does not exactly meet the wishes of its author and opposition may justifiably be expressed to the bill at that time, but after a hearing or after conversation with its opponents, the author may amend the bill so as to remove the objectionable features and thereby win the support of its early opponents. Unless the individual physicians of the County Society have a way of learning from the chairman of their local committee about such amendments, their activity in support or in opposition may be wide of the point through their ignorance.

It is with great pleasure that we also speak of the splendid cooperation we have had from Senator Karle and Dr. Lattin, chairmen of the two Committees on Public Health, and from Senator Webb, Assemblyman Loomis and Assemblyman Miller who are sponsoring our bills in the separate Houses and enthusiastically working for their enactment.

Respectfully submitted,

HENRY L. K. SHAW,
Chairman

March 20, 1926

The Reference Committee and the House of Delegates approved the plan of the Committee on Legislation by which lay organizations were enlisted in the active support of the Practice of Medicine Act. The successful passage of the Act by both Houses of the Legislature is further evidence of the wisdom of securing their support. See page 465.

REPORT OF SPECIAL COMMITTEE TO STUDY THE WORKMEN'S COMPENSATION LAW

To the House of Delegates

In submitting the following report of the "Special Committee appointed by the President, Dr. Van Etten, to study all laws affecting Workmen's Compensation and to suggest modifications on existing Compensation Law," your Committee feels that a brief outline of the work of the Committee will be of interest and value to the House of Delegates.

Upon receipt of the appointment to the Chairmanship of this Committee, my first inclination was to follow the example of previous committees appointed for this purpose—that is, recognize it as a very difficult, impossible job and pass it up. After several conferences with Dr. William Britt, Chairman of the Committee on Economics, State Society, I decided, however, to take the plunge and attempt the task delegated to me by President Van Etten. A letter was written to Dr. Van Etten, a copy sent to Dr. Dougherty, President

and Secretary of the Society, acquainting him with this decision and setting forth certain suggestions in connection with the Workmen's Compensation Law and relationship of the Medical Profession to it, and definitely outlining points to be considered.

The first week in December, a conference of Dr. Van Etten and several members of the Committee, who happened to be present at the State Industrial Safety Conference in Syracuse, was held, and it was decided that twenty-five copies of this letter be sent to each member of the Committee for distribution among his doctor friends, and several hundred copies to be distributed throughout the State. The purpose of this was to secure reaction, criticisms, suggestions, in order to know the attitude of the members of the Society.

The reaction to this letter was most striking and most encouraging to your Committee. Letters from all over the State evinced the greatest

"Thus it appears that after 22 years of operation of the registration law of the State of New York many institutions are woefully short in supplying the minimum necessary educational facilities for turning out Registered Nurses from their own training schools. As trained nursing is so important an adjunct to the profession of medicine not only in the care of the sick but also in maintaining the health of the people by preventive measures, as the hospital is instituted primarily for the care of the sick and not as an educational institution, and as hospitals find difficulty in providing funds for the proper establishment and support of registered training schools, and as nurse training now has become strictly an educational activity, it would appear that the time has arrived completely to separate the training school from the hospital, notwithstanding that hospital experience is of paramount necessity in the education of nurses.

"I offer as a substitute for the present system of nurse training that the Department of Education of the State of New York take over entirely nurse education by establishing in its vocational schools nurse training as an extended high school course, that the course begin with entrance to the high school and extend for a period of from five to six years, at least one or two of which shall be spent in residence in and in training in an approved hospital before granting the certificate of Registered Nurse licensing the holder to practice as registered nurse in State of New York.

"I have not worked out the details of such a scheme but have worked out Tables A, B, C, and D, showing hours spent and curricula. Practical teaching could be obtained by arrangement with home institutions for non-resident pupil-nursing service. According to the October, 1923 issue of the American Hospital Digest and Directory there were in the State of New York 617 hospitals and sanitariums with a bed capacity ranging from 3 to 6,537 making a total of 121,084 beds. In addition there were 91 allied institutions taking care of infirm, abnormal or chronically sick people with a bed capacity ranging from 2 to 400, making a total of 5,362 beds.

"These 708 institutions with 126,446 beds, are scattered throughout New York State and so located that high school girls taking nurse-training vocational courses could be given non-resident elementary experience in the care of the sick and unfortunate at the very doors of their homes, a practical and efficient substitute for the four months probation in preliminary course, a great expense to hospital as well as a substitute for the 'trained attendant' schools.

The teachers would be licensed, appointed and paid by the State which would relieve the hospitals of a great financial burden.

The Qualifying hospital would secure under-

graduate resident service covering an average of 12 to 22 months from each more or less well prepared pupil in return for the clinical facilities offered the State for Training purposes. The pupil nurse labor-turn-over, about 50% of the annual registration, would be reduced to a negligible minimum. The hospital only would have to supply domicil for one-half to one-third the number of pupils for which it now provides, thus leaving more space for hospital beds or other activities, while the waste, wear and tear of hospital supplies very greatly would be lessened,—another reduction of expense.

"I feel that the quality and quantity of classroom work under such scheme would be above criticism even from the most sensitive physician. There would be no necessity for other qualifying names.

"I feel that the number of properly qualified nurses turned out under this scheme would meet all the demands of the practice of medicine and of hospital requirements.

"I believe this scheme also provides a proper stepping stone for entrance to university instruction to secure bachelor degrees in nursing, from which graduate personnel teachers of nursing, public health nurses, etc., might be drawn."

Periodic Examinations of Apparently Well People is a question that is attracting the widespread attention of the Medical Profession of this State, especially the general practitioners. Through the efforts of your committee a program was put on at the Eighth District Branch meeting in October showing how to carry this message to every member in each County Society and thus with the work being done by the Committee of Public Health and Post Graduate Education bring something of real value to every member of Organized Medicine who is willing to avail himself of the opportunity.

As a sample blank we submit the following which was adopted in Erie County. (See sample enclosed)

We recommend that each District Branch act as a sort of Clearing House for the ideas and problems that should be carried out in every county in their district.

Workmen's Compensation. We feel that the State Society is especially fortunate in the selection of Dr. P. Hourigan of Buffalo as chairman of a special committee to study the Workmen's Compensation Law.

His twenty-five years experience with the medical problems of industry and his high ideals of the practice of medicine, his intimate association with the workings of the Workmen's Compensation Law since its inception and his earnest desire to have medical problems solved by medical men make him especially well qualified to handle this vast question.

recognized in the Compensation Law is that there are three principle parties to the whole question—namely, the workman, the employer and the doctor. No equitable administration of a compensation law to properly benefit the workman can be secured without the most expert medical service available. Your Committee believes that the medical profession cannot aim too high in its efforts to secure recognition of this fact.

It follows as a natural corollary that organized medicine should be held responsible for the character of work done by its members in the administration of this great and beneficent Compensation Law by the creation of a State Medical Advisory Council and of District Medical Advisory Councils, the personnel of which must be approved by the State Medical supervision of its particular work under the law by providing for the appointment as Medical Director and Deputy Medical Director a man who shall be satisfactory to the State Medical Society as a body. The highest standard is established in the medical administration of the law.

A very important, if not the most important, provision of the bill is that whereby the problem of conflict of medical evidence is solved by the reference to a medical expert appointed by the State Advisory Council.

Finally, your Committee is in a position to know that such advanced legislation as contemplated in this measure will fail of enactment in this session of the legislature. In fact, the friends

of this movement, in watching its progress, have moved in a way to prevent the passage of this bill at this session, in order to give the members of the Medical Society of the State of New York, every opportunity to give expression to their ideas and wishes. The work started by your Committee should be continued until all parties concerned are brought to the position of recognizing the contention made by your Committee that no one but the most competent doctors should assist in the administration of the medical provisions of the Workmen's Compensation Law or decide the important questions of medical problems. The repellent methods now pursued, which have resulted in many of the best type of doctors of the State refusing to touch compensation cases, can only be corrected by radical changes in present practices. The injured workman should receive the best possible service that organized medicine can give and this end can be best attained by the Medical Society of the State of New York taking a live, active interest in the detail workings of the medical provisions of the Compensation Law.

This task has taken a great deal of physical energy, time and money, and the chairman, feeling that he has contributed his share, wishes to express an insistent desire to be relieved of any further activity in this work.

Yours very truly,

P. H. HOURIGAN, M.D., *Chairman*

March 29, 1926

The Reference Committee on Legislation, in discussing the proposed Workman's Compensation Acts, said, "The problem has not been solved—it calls for re-statement and re-solution." Pages 458 and 465.

REPORT OF COMMITTEE ON MEDICAL ECONOMICS

To the House of Delegates

GENTLEMEN

The work of the Committee on Medical Economics this year has been directed toward assisting movements already under way.

A Questionnaire to each county society early in the year showed that the following questions were considered of the greatest importance:

- 1 The Nursing Problem
- 2 Periodic Health Examinations
- 3 Workmen's Compensation
- 4 Industrial Medicine

We have directed our efforts toward the consideration of these questions this year.

The work on the Nursing Problem has been in conjunction with the Special Committee to study this problem and as the work of that committee has been so wide spread and constructive and seems to offer a means of solving the most of that problem we do not care to bring in separate report. As chairman of the economics com-

mittee I should like to see more emphasis placed on the plan of Doctor Lytle as revealed at the Utica Conference, his suggestion is as follows:

"On January 1, 1925 in the State of New York there were upwards of 150 institutions conducting nurse training schools. The Regents register 143 of these institutions as maintaining acceptable training schools. However, only 22 of these recognized institutions gave the complete required training within their own walls. To complete the required training the other schools affiliate with institutions giving training in the lacking topic. There is a diversity of opinion regarding the effects of this procedure. However, the Board of Regents require that all educational institutions seeking its recognition and endorsements shall comply with the minimum requirements so that individuals contesting the Regents' examinations for certificates or licenses shall have a minimum standardized preparation, and so that the public which include the practicing M.D., shall be protected.

It would seem wise in these days of specialism and near specialism that the Society of the State of New York, made up very largely of general practitioners, should conclude its Annual Meeting with a session in which the unity of disease should be strikingly emphasized and the necessity of a broad clinical viewpoint clearly demonstrated.

Osler said "I often tell my students that it is the only disease which they require to study thoroughly. Know Syphilis in all its manifestations and relations, and what remains to be learned will not stretch the pia mater of a mega-locephalic senior student."

The Committee has therefore striven to present this subject on Thursday, April 1st, in a way which will be most helpful to every member of the Society no matter what his field of practice. The morning session will begin with a complete clinical and pathological demonstration of every phase of Syphilis illustrated by patients, pathological specimens, moving pictures (10 machines constantly in operation) charts, instruments, drugs, etc. This demonstration will continue the entire day and will be in charge of the leading syphilographers of New York City who will be in constant attendance to demonstrate characteristic lesions, to clear up questions of differential diagnosis and to indicate the accepted lines of treatment in the difficult phases of this disease. In fact they will stand ready to answer in the light of our present knowledge all questions in regard to Syphilis.

In the afternoon there will be seven fifteen-minute addresses without discussion on the leading phases of Syphilis by outstanding authorities of this country.

2 00 P M—"What Price Syphilis?" By William F. Snow, M.D.

The Reference Committee and the House of Delegates especially commended the entire program of scientific work. "The special day's program on syphilis deserves the hearty support and attention of the whole Society." Page 463

REPORT OF THE COMMITTEE ON ARRANGEMENTS

To the House of Delegates
Gentlemen

The Committee on Arrangements takes pleasure in saying that all arrangements have been made for the coming Annual Meeting which will be held at the Waldorf-Astoria.

The Waldorf-Astoria, as every one knows, is

*2 15 P M—"Syphilis from the Point of View of the Dermatologist" By Grover Wende, M.D.

2 30 P M—"Syphilis from the Point of View of the Internist" By Udo J. Wile, M.D.

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3 30 P M—"Problems, Methods and Results in the Treatment of Syphilis" By John H. Stokes, M.D.

This remarkable and unique presentation of probably the most historic and virulent disease in the world was possible only by the co-operation of the resources of the New York City Department of Health, New York State Department of Health, New York State Hospital Commission, New York State Department of Charities and the American Social Hygiene Association. Our thanks are especially due to the splendid work and efficient organization of our local Committee of which Dr. Louis I. Harris of New York is Chairman. They have spared no effort and no exertion to make this demonstration so attractive and valuable that no member of the profession could afford to miss it.

Respectfully submitted,

ANDREW MACFARLANE,

March 15, 1926

Chairman

* Dr. Grover Wende was killed by an automobile February 9. His death was almost an irreparable loss to his community and profession. He was an outstanding personality in our Society and very generously accepted this invitation to take part in the symposium. Dr. Jay Frank Shamberg has kindly consented to take his place.

particularly well arranged for meetings, as most of the rooms are large and give ample space for the Scientific Sessions, which promise to be of usual interest at the coming meeting.

We are fortunate in being able to hold all the meetings on one floor, including the House of Delegates, Scientific Sessions, Bureau of Regis-

His committee while not organized until November did some very rapid work and as a result of the replies to hundreds of letters sent to individuals and to every County Society in the State he prepared a bill which was introduced at the opening of the legislature on January 4, as A165, SI35

This bill has been approved in the main by every County Society meeting at which it was presented and by the Conference of Legislative Chairmen at Albany on February 10. We feel that the enactment of this bill into law will go a long way toward the solving of some of the problems of the Workmen's Compensation Law and at the same time place greater responsibility on the Medical Society of the State of New York.

We recommend that the present Special Committee to study the Workmen's Compensation Law be continued another year and that the present House of Delegates approve their work thus far.

Industrial Medicine Your committee has felt that Organized Medicine was losing something that the fellows in Industrial Medicine were enjoying. The live bunch of fellows who constitute the New York State Society of Industrial Medicine have done some real constructive work. We feel that it would add very much to the strength of Organized Medicine if the Industrial Physicians would put on one of their splendid programs as a separate section of the State Program next year. We feel that this could be done without in any way detracting from the strength of the New York State Society of Industrial Medicine.

Your committee this year participated with the committee on arrangements for the Ninth Industrial Safety Congress. With the co-operation of the President and Secretary of the State Society there was a closer union of the State Society and Industrial Commission than ever before.

Your committee has felt that personal conferences lend much to a cleared understanding of the problems confronting the Medical Profession. As a result your chairman has had the privilege of discussing the forementioned problems before the Society meetings or the Economic Committee in several counties throughout the State.

We feel that the combined effort of the State Department of Health, State Charities, and the Medical Society of the State of New York to work together for the eradication of diphtheria by 1930 is a progressive step that should enlist the support of every physician in the State.

We realize that the work done this year is but an infinitesimal part of the vast work to be done, but we offer it and thank you for the opportunity.

Respectfully submitted,

WILLIAM WARRLEN BRITT, M D, Chairman,
CHARLES O. BOSWELL, M D,
NELSON K. FROMM, M D,
HENRY B. DOUST, M D,
ARTHUR S. CHITTENDEN, M D

March 15, 1926

For action on the Nursing suggestions, see the report of the Nursing Committee, page 459.

For an action on the suggestions regarding Workingman's Compensation, see the report of the Reference Committee on Legislation, page 465.

REPORT OF COMMITTEE ON SCIENTIFIC WORK

To the House of Delegates

GENTLEMEN

This Committee has had two sessions. The first at the Princeton Club, New York City, on Sunday, November 29, 1925, when the entire Committee together with several secretaries of the sections and the Chairman of the Committee of Arrangements, Dr. E. R. Cunniffe, met and discussed in detail the general topics which should be presented at the Annual Meeting of the Society.

The second and final meeting was held on February 7th at the Waldorf-Astoria. The entire Committee was again present together with Dr. E. R. Cunniffe and the general manager of the Society, Miss Baldwin. After a complete dis-

cussion and acceptance of the programs of the sections, an adjournment was taken to inspect the rooms where the sessions of the sections were to be held. The requirements of each section were then fully considered and discussed.

The three years' experience of the Chairman has emphasized the wisdom of holding the meetings of this Committee on Sundays when it is possible to secure a full attendance of the Committee.

On account of the very great success of the Thursday session on Tuberculosis at the last Annual Meeting in Syracuse, N. Y., it was decided to test out at this meeting in New York the same general plan and to consider Syphilis from every point of view.

It would seem wise in these days of specialism and near specialism that the Society of the State of New York, made up very largely of general practitioners, should conclude its Annual Meeting with a session in which the unity of disease should be strikingly emphasized and the necessity of a broad clinical viewpoint clearly demonstrated.

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We are fortunate in being able to hold all the meetings on one floor, including the House of Delegates, Scientific Sessions, Bureau of Regis-

tration and Commercial Exhibits. This, as every one knows, is a great advantage, as it enables those attending the meeting to attend several Sessions in an afternoon, if they so desire.

The Annual Banquet will also be held in the Waldorf-Astoria, on Tuesday evening, March 30th, at which the usual custom of the Society

will be followed by having the ladies present.

The General Meeting will be in the Ballroom of the Waldorf-Astoria, Wednesday evening, and an interesting program has been prepared.

Respectfully submitted,

EDWARD R. CUNIFFE,

Chairman

March 15, 1926

REPORT OF SPECIAL COMMITTEE ON NURSE QUESTION

To the House of Delegates

Gentlemen

At the annual meeting of the House of Delegates held at Syracuse in 1925, a report of a Special Committee on the Nurse Question was presented. On account of the great importance of the subject, and the fact that no definite plan or scheme had been advanced as a possible solution, the House of Delegates voted that the incoming President appoint a Special Committee to continue the investigation and to submit its findings to the 1926 annual meeting of the Society.

The salient facts and data relative to the general scope of nurse education contained in the 1925 report, have been confirmed and are accepted as established facts without repetition in this report.

For the purpose of a survey, the committee was subdivided into two groups—the lower half of the State, under the chairmanship of Dr. E. Eliot Harris, and the upstate under the chairmanship of Dr. Andrew Sloan.

The committee as a whole, and as subcommittees held several conferences with interested groups of citizens, including Nurse Associations, Hospital Superintendents, Board of Hospital Managers, several prominent physicians and representatives of the State Education Department.

We submitted pertinent questions in advance to all of these groups as a basis for conference discussions. The subjects proposed for discussion were substantially as follows:

(A) Present standards of Nurse Education including preliminary requirements

(B) Length of time required to train a nurse

(C) Cost of training a nurse

(D) The ultimate distribution of graduates into bedside nurses and the higher activities relating to Public Health, School, Red Cross, Teaching and Industry

(E) Constructive criticism and suggestions pertaining to the economics of the Nurse Question

Owing to the complexities of this entire question and the special requirements and demands peculiar to different sections of the State, your committee discovered a wide variation in ideas

and remedies. Generally speaking, no particular group appeared entirely satisfied with present conditions, yet from the data submitted at the conferences we are unable to focus on any one or number of known factors as the definite cause for the present dissatisfaction.

The collected material, as the result of these conferences, is too voluminous to include in a report of this character. It will be filed with the Secretary of the State Society for reference by subsequent committees and interested members. Your committees can only hope to present at this time a brief epitome as a basis for our conclusions and recommendations.

PRESENT STANDARDS OF NURSE EDUCATION INCLUDING PRELIMINARY EDUCATIONAL REQUIREMENTS

The law governing Nurse Education in New York State provided for two groups:

(a) The course leading to Registered Nurse degree

(b) The course leading to Trained Attendant certificate

While it is true that definite restrictions are placed on the words "Trained," "Certified," "Graduate" or "Registered" Nurse, there is nothing in the law which prevents anyone from earning a living as a nurse. And furthermore there is nothing in the law which prevents any hospital from conducting a Nurse Training School in any way it chooses. The Education law applies solely to such hospitals as voluntarily elect to conduct Approved and Registered schools whose graduates may qualify after State examinations as Registered Nurses or become certified as Trained Attendants.

The present requirements for preliminary education leading to a Registered Nurse degree is one year of high school or its equivalent, the equivalent is determined by an expert in the State Education Department. The requirements for the preliminary education of the Trained Attendant class is a completion of the eighth grade of grammar school. As result of our survey we discovered an overwhelming opinion that these standards are not too high, and that it would be a dangerous expedient to lower them. Taking

into consideration the facts that a pupil nurse does not enter training school under eighteen years of age, and that the general education law may compel the public school pupil to continue attendance until eighteen years of age (in certain instances part-time only) in an effort to attain the eighth grade, it is reasonable to suppose that any young woman, unable to complete one year of high school or its equivalent before her eighteenth year is hardly desirable material for nurse training. She is manifestly lacking in mental equipment and ambition.

Your committee has held conferences with the State Education Department concerning the present curriculum and the distribution of the hours of study and bedside instruction. There were some individual differences of opinion, but on the whole, the course leading to a Registered Nurse degree, which has recently been revised, appeared satisfactory and necessary for the higher type of nurse provided for in this law. The State Education Department expressed its desire to continue to hold conferences with accredited committees of the State Society with the view to further revision of the curriculum from time to time.

Your committee has studied the character of questions submitted by the Board of Nurse Examiners. There were several questions, both in the written and oral examinations, which appeared to us, as physicians, totally out of place in an examination designed to determine the fitness of a nurse to practice. Obviously, if such questions constantly appear in State examinations, the pupil nurse will devote time and energy to prepare herself to meet them at the expense of acquiring more important and practical information. We have received no adequate defence or satisfactory explanation for the presence of these questions. It has been suggested that physicians, familiar with hospital teaching, should have some official contact with this Board of Nurse Examiners.

We ascertained that the number of students entering Trained Attendant Schools was not increasing but that there is a steady increase of pupils entering the course leading to the R. N. degree. The total number of pupils in Registered Schools of the State during 1925 was 6,118, an increase of 872 over the year of 1924. The average increase for the past ten years has been 194 per year. 3,651 new pupils entered the registered hospitals in 1925, whereas only 1,624 matriculated in 1920. This is an increase of 55 per cent.

LENGTH OF TIME REQUIRED TO TRAIN A NURSE

The present law requires a probationary period of four months in all cases. The minimum time of training is two years. A choice of courses is allowed covering a course of two years, two

years and nine months or three years. There are 157 Registered Nurse Training Schools in the State of New York of which only three complete their course in two years. Sixty-four give a three-year course and the others range from two years and four months to two years and nine months. Local conditions of clinical material and teaching facilities, and individual tastes in lengthening the course to include the non-required or optional subjects, are responsible for the variation in lengths of course.

COST OF TRAINING A NURSE

There appears to be no uniform system of hospital accounting, so the committee was unable to ascertain definitely the cost to the institution for training a nurse. From such data as we were able to obtain the estimated costs ranged from \$600 to \$1,300 for each nurse graduated. The burden of this expense falls either upon the endowment funds or the per diem charge to the patient. Mention should be made of the fact, in this connection, that the services rendered by the pupil nurse largely counterbalance this cost. Reduced to the basis of board, lodging and wages only, the cost of hired help, doing unskilled labor in the kitchen and ward, exceeded in all instances that of the pupil nurse. The added cost of graduate teachers, ward supervisors, laboratory equipment and nurses' homes—all very necessary and desirable features, amounts to a very considerable sum and one which is bound to increase greatly the general expense of the hospital.

A study of the ratio of students to patients in 110 registered hospitals in New York State, having a total capacity of 15,769 beds, shows the interesting facts that the ratio is one nurse to two and a half patients in hospitals of 50 to 150 beds, one nurse to three patients in hospitals of 150 to 300 beds, and one nurse to four patients in hospitals having 300 or more beds. This explains in part the relatively higher cost of maintaining a training school in a moderate size hospital.

In reply to our inquiry, "Why do you conduct a Nurse Training School?" some very frankly said, "In order to provide nursing help in the hospital," and others said, "As a matter of benefit to the community." It is our opinion that both the utilitarian and altruistic motives are responsible in all cases.

THE DISTRIBUTION OF GRADUATES

Notwithstanding the steady increase in the number of young women entering training in the hospitals of New York State, an increase of 55 per cent within the past five years, the ratio of demand for skilled nurses exceeds that of the visible supply. Broadly speaking, there is a demand for two general types of nurses, one, a strictly bedside nurse willing to respond to the

call of the sick, either in the private home or the private room of the hospital, and the other, functioning as a nurse in the activities of Public Health, Public School, Red Cross, or Nurse Teaching

From the statistics and opinions gathered at our conferences, we learned that there is not only a dearth of the bedside type, but of the other group as well. According to the 1925 State census, there were 19,678 graduate trained nurses in the State—a ratio of one to every 567 inhabitants. We were unable to determine what percentage of these were attached permanently to sanatoria and health resorts and what percentage were in the higher activities of Public Health, etc. Approximately 15 per cent of Registered Nurse graduates ultimately take up work of the latter type.

A study of distribution made by the State Education Department shows that in a certain few rural counties the ratio of nurse to population is one to four or five thousand. In a few counties the ratio is one to two or three thousand, while in New York County the ratio is one to 282, indicating that the nurses concentrate in the centers of population and wealth. Both graduate and undergraduate nurses are included in the above.

For the entire State there is one nurse to every 432 of the population. This includes nurses in training.) A similar study, based on the 1920 census, shows the identical proportion, from which can be deducted the fact that the relative proportion of nurses to the population has not increased at all in the past five years.

The shortage of bedside nurses is not strictly speaking seasonal, but appears at varying times in different years, and is not manifested synchronously throughout the State. In all localities there are times when the registries have several nurses waiting on call.

We were told from the hospital superintendent group that, within three or four years after graduation, many nurses are lost to the profession, frequently through marriage and occasionally through ill-health or because of a decision to go into some other field of work. This same superintendent group doubted whether it were ever possible to supply a sufficient number of trained nurses to meet all present-day demands.

Through the system of annual registration of Registered Nurses, we know that 19,678 nurses were practicing in the State of New York on January 1, 1926, in some capacity. In addition to these, there is a large number of young women assuming the rôle of trained nurse. Many of these have come from other states, having graduated from institutions not accredited by the New York State Education Department as meeting the minimum standard required by law. According to this same law they are not entitled to use the

term "Trained," "Graduate," "Certified" or "Registered" nurse, and by that same law they can not assume the supervisory positions in hospitals conducting Training Schools under the supervision of the State Education Department. Laws in other states militate against foreign nurses who have not met local standards in much the same way. The theory of the New York State law is to protect the graduate of our own registered hospital group, and to prevent graduates of presumably inferior institutions in other states from coming into direct competition with the New York State Registered Nurse.

It is alleged that the commercial nurse registries supply nurses without discrimination as to their status. There can be no objection against the practice of supplying nurses of any type in case of great urgency or stress of epidemics, but it seems to be the consensus of opinion, gleaned from our conferences, that under normal conditions all nurses sent out on cases should be properly labelled, so that the family and physician might be informed whether the nurse were a bona fide registered nurse, trained attendant, graduate nurse unrecognized in this State, or practical nurse. To correct this condition a movement has been started to establish in each city an official registry, conducted by a selected number of physicians, registered nurses and interested laymen. Such an official registry is now established in Buffalo, and just passing beyond the experimental stage. The Official Registry should have the hearty co-operation of all physicians and nurses interested in solving one of the many perplexing problems of the Nurse question.

ECONOMICS OF THE NURSE QUESTION

The economic advantage to a community of highly trained nurses is often overlooked by those who are so urgently insisting upon a lowering of present standards by way of stimulating the production of strictly bedside nurses.

Undoubtedly the work of the Public Health nurse is instrumental in forestalling a great amount of sickness through preventative measures and intelligent instruction of the masses on health and hygiene. The necessity for highly trained women to supervise departments and instruct classes in hospitals is obvious. The present methods of obtaining these is to require the registered nurse to pursue a post-graduate special course. Manifestly whatever changes may be suggested in our system of nurse education, provision must be made for a continuance of the present program of educating nurses in hospitals, leading to an R. N. degree.

Contrary to the opinion sometimes expressed, all Registered Nurses do not go into the higher activities, but many remain as very superior bedside nurses throughout their career.

It already has been mentioned that the expense

of maintaining an Approved or Registered Hospital is so great as to become prohibitive for many hospitals whose value and necessity in their respective communities is unquestioned. These institutions have left to them the alternatives of either employing graduate nurses to run their wards and departments, or to conduct training schools whose graduates can not hope to register as Trained Nurses, or ever be recognized as such in this State. These Institutions find the greatest difficulty in securing pupils for training on this account.

In view of the fact that there is an all too apparent need for more nurses of the bedside type, our conferences discussed the desirability of establishing a course of training particularly suitable for this type and one which could be provided at comparatively small cost by a number of hospitals unable to conduct a Registered Training School of present standards.

This course, for lack of better name, was called the Basic Training Course, to include only the absolute essentials of anatomy and physiology, hygiene, materia medica, obstetrics and gynecology, internal medicine, pediatrics, dietetics and surgery. The didactic lectures to be minimized and particular stress laid upon bedside technique. The entrance requirements suggested were at least one year of high school or its equivalent, and the course at least twenty months preceded by four months probationary period.

A young woman passing through such a course should have a title consistent with the training. It was suggested that she might very properly be called a "Hospital Graduate Nurse."

The details of this plan require further study and your committee is not yet prepared to present a final program. The essentials of this plan were presented at a conference of hospital superintendents and prominent registered nurses and met with hearty approval. The State Education Department expressed a willingness to entertain the idea.

The question of part-time and group-nursing was discussed at our meetings and we were led to the conclusion that this phase of utilizing a nurse deserves more serious thought and study by interested groups of physicians.

There is an undoubted abuse of nurse employment by the luxury loving public. This is a very serious subject and there is urgent need for reform. An instance was mentioned where one patient employed two day nurses and two night nurses. A prominent New York physician mentioned that eighteen special nurses were at that time attending patients in a strictly charity ward

of one of the city hospitals. Instances of the above kind indicate a faulty distribution and utilization of our present supply of nurses.

One of the factors not hitherto mentioned as responsible for the dearth of bedside nurses is that the occupation itself has ceased to be attractive. This was well expressed by a committee of hospital superintendents who said, "Probably some of the most important reasons for the shortage of bedside or private duty nurses are the difficult conditions under which they work, the long hours, the unavoidable loss of time, the lack of an opportunity for home life, and last and in our judgment most important, the fact that there is a constant retrogression rather than opportunity for advancement as the years go on. Younger graduates see and feel this backward trend in the tired, worn-out, middle aged private duty nurses whom they encounter in the hospitals and elsewhere, and they compare such work unfavorably with other branches which offer opportunity for advancement and personal development."

Regarding the nurses' fees and time on duty, the nurse after graduation is a free moral agent and her service to the community is controlled entirely by the basic economic law of supply and demand. No amount of legislation or regulations can arbitrarily determine her life. On the other hand, such nurses as choose to demand exorbitant terms can with justice be removed from the lists of official registries.

RECOMMENDATIONS

Your committee recommends

(A) that the Society go on record as approving the Official Nurse Registries and disapproving the commercial nurse registries so long as they fail to properly label the nurses whom they supply.

(B) that the Society approve of the suggested plan of a Basic Nurse Training Course, and that a committee be appointed by the President to confer with committees from the State Nurse Association, the State Hospital Association and the proper authorities within the State Education Department with a view of determining a suitable course of study.

(C) that the Society continue the study of the Nurse question for another year, and that the President be requested to appoint a special committee for that purpose.

Respectfully submitted,

ARTHUR W. BOOTH, M.D., *Chairman*,
March 15, 1926

MINORITY REPORT OF SPECIAL COMMITTEE ON NURSE QUESTION

To the House of Delegates

Gentlemen

As a member of the Special Committee to study the nurse problem, I find it impossible to concur in recommendation (B) "that the Society approve of the suggested plan of a Basic Nurse Training Course," as from the context I infer that it is to lead to the recognition of another type of licensed nurse in addition to those for whom provision already is made, which recognition will but increase the confusion now existing

From knowledge gained by study of the evolution of nurse education and practice since the adoption by the legislature in 1903 of the Amendment to the Public Health Law governing registration of nurses, I respectfully would submit the following as a minority report

The Regents of the University of the State of New York should receive unqualified support for insistence that the minimum nurse training education requirements demanded by law shall be maintained by each and every training school seeking their endorsement, and that such schools not only shall provide proper educational facilities but as well proper living conditions so that credentials granted by the State will represent standard minimum values. At the same time it should not be forgotten that the Regents in order to make it possible for many hospitals to maintain recognized training schools, have provided a system of affiliations so that their diplomas shall stand on an equal footing with any other recognized school. And it shall be remembered that the Regents during the twenty-three years existence of the Nurse Registration Law established several waivers, the last in 1922, whereby without passing the standard licensing examinations thousands of women whose only qualifications were that they held themselves out to the public for a period of time to care for the sick as nurses were admitted to the registered nurse ranks, this liberality, in all probability, in large measure has been the source of much of the criticism that registered nurses are "hard-boiled"

The New York State Organizations of Nurses which includes The New York State Nurses' Association, The New York State League of Nursing Education and The New York State Organization for Public Health Nursing, are to be complimented on their un-failing good nature under trying circumstances and their repeatedly expressed willingness to co-operate with the Medical Society of the State of New York, in endeavors to improve the educational and technical equipment of the professional nurse for the supreme duty of caring for the sick at the bedside, as well as

in the ever-widening field of public health activity, to improve the living and social conditions of the student nurse, that all too frequently are detrimental to her morale and preparation, to inculcate student nurses with high ideals of service, and to maintain in the heterogeneous registered personnel high ideals of service in the face of changing times and economic difficulties. The leaders of the nursing profession of the State of New York—the first State to establish hospital training schools for nurses, and, the first to standardize and license professional nurses—deserve commendation for unremitting effort to keep the Empire State in the van of progress

While it may be true that there seems to be shortage of registered nurses to do bedside nursing in the home, no such shortage seems to be found in private duty nursing in hospitals. The possible number of nurses in the field would seem to be sufficient to supply the nursing needs of the State. Investigation, however, shows the difficulty to be due to uneven distribution, a condition that has a parallel in the distribution of practicing doctors of medicine. While professional nurses have ideals of service as high, if not higher, than physicians, at the same time, like physicians, they must live, and, so like physicians gravitate to those areas in which opportunity seems the greatest. The apparent shortage, therefore, is purely an economic one which reason also accounts for the increased demand for the registered nurse by a public that seems unwilling to engage less well trained nurses

The practice of nursing is no longer an industrial activity. It has become strictly a profession that requires educational qualifications comparable to that of any other profession and which education obviously cannot be held responsible for economic conditions. The law should recognize but one basic type of professional nurse paralleling similar recognition in other professions. Fundamentally nursing is caring for the sick. Caring for the sick at the bedside carries individual responsibility. Therefore, the basic education for bedside nursing should be as advanced and as thorough as for any type of public health nursing or as for any other special nursing activity. The difficulty, if any, resides in the management and conduct of the individual training school and not in the minimum requirements established by law and administered by the Regents. The attitude of the directors of hospital nurse training schools strictly is economic. It would seem that the cost of maintenance of hospital "nurse training schools in New York State has not as yet become as burdensome as the hospital administrators would have the public think. Most hospitals maintaining nurse training schools

still find they can run their hospitals cheaper by using student nurses to do the work of the hospital than in any other way," which "would not seem to indicate that the expense of giving the nurses the very limited instruction which is required had become too burdensome"

As the function of the hospital is to care for the sick, as the student nurse is demanding educational opportunities that hospital administrators assume is placing an unjustifiable financial burden on the hospitals, it would seem that the present system of nurse education is inadequate and soon must undergo radical changes. The hospital nurse training school only should develop experience in caring for the sick at the bedside, applying the principles and practice of nursing taught in extra hospital schools. Under the present minimum requirements of the law such preliminary teaching could be given in the high schools and academies of the State in a vocational course preparatory to entrance to hospital training schools. The qualifying hospital would secure under-graduate resident nurses with theory all finished, whose elementary training would eliminate losses from discontinuance, wastage, housing and maintenance, and, would secure greater efficiency from entrance. In support of the advantages of this high-school-hospital system, Dr Charles R. Mann, Directory of the American

Council on Education at the annual Congress on Medical Education, Medical Licensure, and Hospitals at Chicago February 15-18, 1926, in discussing the defects of medical curricula suggested the use of what is known in industry as "job specifications" for "application to the medical profession so that as far as possible students likely to succeed in medicine could be picked during their elementary and high school course and only those properly fitted for the study of medicine would be permitted to undertake it." The high-school preparatory nurse would automatically eliminate undesirable students whether from mental and physical incapacity or from romantic notions.

I would recommend that the Committee on Economics or a sub-Committee be directed to confer with the Department of Education, the New York State Organizations of Nurses and the New York State Hospital Association to the end that nurse training courses be established in the high schools and academies of the State similar to the courses for household economics, and, whose graduation credentials shall admit such provisional nurses to hospital training schools granting diplomas leading to registered nurse certificates.

A T LYTLE

March 29, 1926

The Reference Committee and the House of Delegates approved the recommendations of the Committee's majority report regarding the establishment and control of Nurses' Agencies by the several County and Medical Societies. They also approved the plan of President Van Etten, (page 459) for a two year basic bedside training for all nurses and state recognition of those who have passed that course.

The minority report was disapproved. Page 459

CHARLES GORDON HEND, Treasurer, In Account with THE MEDICAL SOCIETY OF THE STATE OF
Dr NEW YORK Cr

CASH RECEIPTS, YEAR ENDED DEC 31, 1925	
Balance, January 1, 1925	\$3,627 74
Directory Advertising, 1923	50 00
Directory Advertising, 1924	815 00
Directory Advertising, 1925	3,439 00
Directory Sales, 1924	1,322 00
Directory Sales, 1925	1,148 00
Annual Dues, 1924	1,340 00
Annual Dues, 1925	98,447 50
Annual Dues, 1926	1,490 00
Arrears	256 00
Clerical Work, N Y County	263 57
Refund, Postage and Envelopes	264 45
Telephone	3 95
Interest on Deposits	510 86
N Y Academy of Medicine Reprints	10 00
Interest on 4 1/4% Liberty Loan Bonds	429 25
Interest on Mortgage Certificate	110 00
Annual Meeting, 1925 Exhibits	3,840 00
Annual Meeting, 1925, Delegates Dinners	278 00
Journal Subscription and Sales	428 45
Journal Advertising	17,685 08
Journal Expense	5 65
Journal Publication	37 60
Bad Debt Recovered	15 83
	<u>\$132,190 19</u>

CASH PAYMENTS, YEAR ENDED, DEC 31, 1925	
Rent	\$1,700 00
Telephone	339 16
Salaries, General	8,043 35
Insurance	5 64
Journal Postage	1,779 54
Journal Commissions	4,287 42
Journal Salaries	3,853 65
Journal Expenses	939 15
Journal Publication	25,933 93
Executive Editor, Salary	4,500 00
Expense	726 72
Honorarium Editor	500 00
Journal Salary, Literary Editor	150 00
Journal Discount	760 86
Postage	353 80
Furniture and Fixtures	176 00
Union Dime Savings	110 00
Traveling Expenses, General	2,015 84
A M A Delegates	95 93
General Expense	305 02
Stationery and Printing	1,087 35
Carfares	27 90
Express	33 56
Honorarium	500 00
Premium—Treasurer's Bond	12 50
Refund on Advertising	1 00
Audit	375 00
Clerical Work	48 92
Annual Meeting, 1925	5,039 54
Annual Meeting, 1926	86 50
Legal Expense	14,892 77
Committee on Legislation	5,450 41
District Branches	1,201 46
Honorarium Secretary	791 69
Annual Dues, 1925 Overpayments	20 00
Committee on Medical Economics	104 38
Committee on Public Health	2,725 24
Committee on Nurses' Problems	166 84
Committee on Medical Practice Act	115 20
Directory Commissions	1,146 25
Directory Incidentals	43 22
Directory Postage	598 10
Directory Delivery	1,209 27
Directory Discounts	67 75
Directory Printing	10,594 40
Directory Stationery and Printing	332 75
Directory Salaries	3,853 65
Executive Officer Salary	8,000 00
Executive Officer Expense	2,775 67
	<u>\$117,877 33</u>

Balance on Deposit with Guaranty Trust Company, Dec. 31, 1925	
General	\$17,466 89
Committee on Medical Research	465 47
	<u>\$17,932 36</u>

Balance, Petty Cash	8 24
	<u>\$17,940 60</u>
	<u>\$135,817 93</u>

\$135,817 93

ANNUAL DUES, 1925			
County	Amt Paid	County	Amt Paid
Albany	\$2,040 00	Lewis	50 00
Allegany	290 00	Livingston	220 00
Bronx	6,220 00	Madison	250 00
Broome	980 00	Monroe	3,950 00
Cattaraugus	432 50	Montgomery	500 00
Cayuga	480 00	Nassau	1,090 00
Chautauqua	800 00	New York	31,980 00
Chemung	410 00	Niagara	760 00
Chenango	335 00	Oneida	1,570 00
Clinton	260 00	Onondaga	3,030 00
Columbia	350 00	Ontario	690 00
Cortland	220 00	Orange	980 00
Delaware	180 00	Orleans	160 00
Dutchess-Putnam	1,130 00	Oswego	480 00
Erie	6,105 00	Otsego	350 00
Essex	230 00	Queens	2,425 00
Franklin	560 00	Rensselaer	1,060 00
Fulton	330 00	Richmond	710 00
Genesee	240 00	Rockland	410 00
Greene	230 00	St Lawrence	610 00
Herkimer	500 00	Saratoga	400 00

Schuyler	110 00	Warren	350 00
Seneca	180 00	Washington	360 00
Steuben	720 00	Wayne	370 00
Suffolk	930 00	Westchester	2,890 00
Sullivan	280 00	Wyoming	250 00
Tioga	250 00	Yates	210 00
Tompkins	590 00		
Ulster	560 00	Total	<u>\$98,447 50</u>

ADVANCE DUES, 1926			
County	Amt Paid	County	Amt Paid
Albany	\$40 00	Oswego	10 00
Cattaraugus	200 00	Queens	150 00
Columbia	10 00	Rensselaer	10 00
Erie	110 00	Richmond	10 00
Herkimer	50 00	Rockland	30 00
Jefferson	10 00	Schenectady	30 00
Kings	370 00	Steuben	30 00
Monroe	30 00	Suffolk	40 00
New York	160 00	Ulster	20 00
Niagara	80 00		
Onondaga	70 00		

DIRECTORY ACCOUNT

	Income		Expenditures
Advertisements	\$5,410 00	Printing	\$10,594 40
Sales	3,227 50	Salaries	3,853 65
	\$8,637 50	Incidentals	43 22
Cost of Directory	9,207 89	Commissions	1,146 25
		Discounts	67 75
		Postage	598 10
		Delivery	1,209 27
		Stationery and Printing	332 75
	\$17,845 39		\$17,845 39

JOURNAL ACCOUNT, YEAR ENDED, DECEMBER 31, 1925

	Income		Expenditures
Advertisements	\$18,373 72	Publication	\$25,896 39
Sales	428 45	Postage	1,779 54
	\$18,802 17	Expenses	933 44
Cost of Journal	24,901 88	Salaries	3,853 65
		Salary, Executive Editor	4,500 00
		Expense, Executive Editor	726 72
		Honorarium Editor	500 00
		Commissions	4,287 42
		Discounts	760 86
		Bad Debts	316 03
		Salary, Literary Editor	150 00
	\$43,704 05		\$43,704 05

BALANCE SHEET, DECEMBER 31, 1925

Current Assets		Current Liabilities	
Petty Cash	\$3 24	Advance Dues, 1926	\$1,490 00
Cash in Bank	17,923 14	Committee on Medical Research	465 47
Accounts Receivable			\$1,955 47
Journal	708 42	Trust Funds	
Directory, 1924	125 00	Lucien Howe Prize Fund	\$2,788 77
Inventories		Merritt H Cash Prize Fund	1,268 99
Directory	1,441 00	Special Fund	109 80
Directory Advertising	2,086 00		\$4,167 56
	\$3,527 00	Surplus	
Liberty Bonds	9,841 26	Balance, January 1, 1925	\$15,347 88
Accrued Interest on Liberty Bonds	125 73	Add Excess of Income over Expenditures	17,172 74
Deferred Charges			\$32,520 62
Annual Meeting, 1926	80 50		
Trust Fund Investments			
Union Dime Savings Bank,			
Lucien Howe Prize Fund	\$1,018 16		
Merritt H Cash Prize Fund	512 10		
Liberty Bonds	599 34		
Guarantee Mortgage Certificate	2,000 00		
Accrued Interest on Guaranteed Mortgage Certificate	27 50		
Liberty Bonds	1 24		
Cash, General	9 22		
Fixed	\$4,167 56		
Furniture and Fixtures	2,130 80		
	\$38,643 65		
			\$38,643 65

S E. HENDERSON & CO., Public Accountants

INCOME AND EXPENDITURES, YEAR ENDING DECEMBER 31, 1925

Income		Expenditures	
Annual Dues, Arrears	\$256 00	Committee on Medical Economics	\$104 38
Annual Dues, 1924	1,340 00	Committee on Public Health	2,725 24
Annual Dues, 1925	\$100,342 50	Committee on Nurses' Problems	166 84
Clerical Work	214 65	Committee on Medical Practice Act	115 20
Interest on Deposits	510 86	Committee on Legislation	5,450 41
Interest on Liberty Bonds	425 00	Honorarium, Secretary	791 69
Bad Debts Recovered	15 85	Honorarium	500 00
		Salaries, General	8,043 35
		Rent	1,700 00
		Telephone	335 21
		Stationery and Printing	812 90
		Postage	353 80
		Expenses	338 58
		Insurance	5 64
		Auditing	375 00
		Legal Expenses	14,892 77
		District Branches	1,201 46
		Premium, Treasurer's Bond	12 50
		Carfare	27 90
		Executive Officer, Salary	8,000 00
		Executive Office Expense	2,775 67
		Traveling Expenses	2,111 77
		Cost of Directory	9,207 89
		Cost of Journal	24,901 88
		Cost of Annual Meeting	982 04
		Excess of Income over Expenditures	\$85,932 12

REPORT OF SPECIAL COMMITTEE APPOINTED TO DRAFT A MEDICAL PRACTICE ACT

To the House of Delegates

GENTLEMEN

Your committee appointed by the President, to prepare a Medical Practice Act, reports as follows

The Committee consisting of Drs Jennings chairman, Chalmers, Stanwix, Leitner, Fisher, Sadlier and Winslow was appointed, and a meeting was held at the Academy of Medicine on June 25th, 1925, at which the President, Dr Van Etten, Drs Jennings, Fisher, Chalmers, Stanwix and Sadlier were present. Plans were discussed, a general program adopted and the meeting adjourned.

Seven subsequent meetings were held at the Columbia University Club on the following dates: July 9th, July 23d, August 6th, August 27th, September 1st, September 22nd and October 22nd. At all of these meetings, with the exception of the first preliminary meeting, legal counsel was present, Mr Oliver of Mr Whiteside's office for the second, third, fourth and seventh meetings, Mr Whiteside for the fifth, sixth and eighth meetings.

Dr Winslow failing to report, Dr Flaherty was appointed in his stead and took his seat at the meeting on August 27th.

Your Committee began its work by a consideration of the present Medical Practice Act and its bearing upon the conditions it is evidently intended to control.

It may be said that public menace from those "holding themselves out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition" in the words of the law, arises from two sources.

The first—those who operate without a license, who have not qualified according to law, the illegal practitioners,

The second—those who having complied with the requirements of the law for admission to practice, abuse the confidence of the public, the profession and of the State.

It is believed that the second group is responsible for as much or more actual evil as the first.

The illegal practitioner of medicine should be detected and brought to justice like any other offender, by the department of justice.

It seems no part of the proper duty of the Department of Education or of medical societies to enforce the law. Hence the proposed act to amend the Medical Practice Act relieves the Department of Education of this burden by providing for one enrollment of all licensed physicians to

complete the rolls and for a mechanism for keeping them thereafter complete.

It is provided that a certificate of endorsement of license shall then be issued to each registrant and that the possession of such certificate shall be recognized as *prima facie* evidence of license, and a failure to produce it on proper demand penalized.

The Attorney General of the State is instructed to assume the enforcement of the Act but it is provided that he shall not interfere in processes already initiated by District Attorneys in counties of over 500,000 population.

The practice without a license is declared *prima facie* evidence of negligence in civil suits arising from damage sustained as a result of such practice.

Misconduct of these admitted to practice—the Profession of Medicine has from time immemorial exacted adherence to a high code of ethics which it is able to maintain among honorable members of the profession. It lacks the mechanism to reach and discipline the men who are beyond the code of honor.

The Board of Regents is now given power to revoke or suspend license to practice, but other measures seem desirable, indeed necessary.

A body analogous to the Grievance Committee of the Bar Association is needed if this important work is to be done.

This Act provided for such a commission on discipline of the physicians to be nominated by the medical societies of the State, to be appointed by the Chief Justice of the Court of Appeals and to function under a method described without pay.

"This commission shall have jurisdiction to hear and determine all charges against duly licensed physicians of this state for violation of the provisions of section one hundred and seventy-four hereof, and shall, upon the finding of such practitioner guilty, have jurisdiction to revoke and annul his license, annul his registration, suspend him from practice or reprimand or otherwise discipline him."

The details of the provisions for the establishment of this body are contained in the Proposed Amendment to the Medical Practice Act which has been prepared by the Committee.

The Council approved the work of the Committee at a meeting held October 29, 1925.

Respectfully submitted,

JOHN E. JENNINGS,
Chairman

March 15, 1926

REPORT OF COMMITTEE ON MEDICAL RESEARCH

To the House of Delegates

GENTLEMEN

The Committee on Medical Research begs to report that up to the present time only one bill on animal experimentation has been introduced in the Legislature. The bill was introduced on March 15th by Assemblyman Alterman to amend the penal law, in relation to experiments upon living dogs.

The bill was referred to the Committee on Codes and no other action has been taken on it up to the present time. The Committee is in readiness at any time to protest against the enactment of this bill, or take any other action that is necessary in order to prevent it becoming a law.

FREDERIC E. SONDERN,
Chairman

March 23, 1926

REPORT OF COUNSEL FOR THE PERIOD FROM APRIL 1, 1925, TO FEB 1, 1926

To the House of Delegates

GENTLEMEN

Counsel herewith submits his report for the period of ten months since the last meeting of the House of Delegates covering the various phases of counsel's activities. During all of this period down to the 15th day of January, 1926, the writer's predecessor, Mr. George W. Whiteside, was counsel for the Medical Society of the State of New York. On that day Mr. Whiteside accepted a most flattering offer to become a member of the celebrated law firm of Chadbourne, Stanchfield & Levy, of No. 120 Broadway, New York City. The opportunity afforded was one which he, of course, could not afford to ignore, although the severance of his relations with the Medical Society which it entailed aroused in him feelings of sincere and deep regret. Mr. Whiteside and the writer, under the name of Whiteside & Stryker, were law partners from June 1, 1912 to January 15, 1926, before which time they were associated together upon the staff of the District Attorney of New York County.

George W. Whiteside was more than a stalwart and effective partner, he was and is a true friend—a friend not only to the writer, but to all the clients whom he served, especially the members of the Medical Society of the State of New York. Without stint he gave all that he had of splendid legal equipment, fine courage, true patience, long experience, sympathetic tact and genuine enthusiasm to the performance of his tasks. By a rare intuition, he seemed to grasp, to comprehend and to master the complicated problems of the medical profession and of its individual members. He spared nothing of time, thought or labor in the upholding of their high standards of professional honor and the espousal of their measures in legislative halls. To the defense of the rights of individual members before courts and juries in practically every county of the state he brought to bear superior skill, experience, effective knowledge and capacity. In the dead of winter in 1923 he traveled to Rochester on a doctor's case. He had a tem-

perature when he started, when he arrived he was taken down with pneumonia. For weeks he lingered between life and death. Through the devoted care of the Rochester General Hospital and the care, vigilance and splendid medical attention of the doctors who attended him there, he was at last restored to health. Thus in defense of the doctors' rights he was willing to and all but forfeited his life.

Since 1920, when Mr. Whiteside became counsel for your Society, the writer of this report, as his partner, conferred and participated with him in the discussion and consideration and solution of medical problems and of malpractice actions. During the first four months of 1923, with Mr. Whiteside suffering with and recovering from pneumonia, the writer took active charge of the problems of the Society and of its individual members, including the defense in court of malpractice actions. Since that time he has tried a number of malpractice actions. In accepting, therefore, the honorable and difficult task of counsel to your Society, the writer approaches the work with knowledge not only of the background, but more important, inspired by the example and ideals of his predecessor—an example which he will have ever before him as an inspiration and a guide.

TABLE I
Number of Suits Instituted and Disposed of

	Instituted 1925 1926	Disposed of 1925 1926
1 Fractures, etc.	9	10
2 Obstetrics, etc.	8	7
3 Amputations	0	0
4 Burns, X-ray, etc.	15	11
5 Operations—abdominal, eye, tonsil, ear, etc.	20	8
6 Needles breaking	8	2
7 Infections	12	2
8 Eye infections	1	0
9 Diagnosis	8	4
10 Lunacy commitments	2	0
11 Unclassified — medical	23	9
12. Loss of services, wife, child	26	13
Totals	132	66

Further Comparisons

	Instituted 1925 1926	Disposed of 1925 1926
Action for death	9	1
Infant actions	19	7
	28	8
How Disposed of		
Settled		11
Dismissed, discontinued, abated or tried (verdict for defendant)		47
Judgment for plaintiff		5
Totals	132	66
Pending on February 1, 1926	355	

Perhaps it might not be out of place here to notice how fortunate the doctors have been thus far in avoiding large verdicts. The trend of the times in every other field of negligence law is unquestionably toward larger damages where juries find in favor of the plaintiff. The present value of the dollar is always taken into consideration, so that it is safe to say that where a jury ten years ago might have rendered a verdict for ten thousand dollars, it will now award double that sum or more. Juries have become increasingly liberal with the money of defendants in every other field of negligence cases, when they find against them. Almost limitless examples of this might be presented, for instance, in the United States District Court of Brooklyn a few days ago, a man who lost his leg while employed as a brakeman by the West Maryland Railroad obtained a verdict against the road for \$40,000. At about the same time a girl of four years of age was awarded in Justice Cropsey's part of the Supreme Court in Brooklyn \$25,000 for the loss of her right arm at the shoulder as a result of being run over by a car. There are now in counsel's files a large number of cases where the injuries claimed to have been sustained at doctors' hands are serious, where the bad result alleged is either death, the loss of an arm or a leg or other equally permanent injury. Thus far the doctors against whom suits for such serious injuries have been brought have been fortunate in not sharing the hard fate which so many other defendants in the negligence field have had to face. Malpractice is but one department of the law of negligence. Every time a doctor is called upon to face a charge of this kind in court, his chance of a verdict being rendered against him increases with the tendency of the times. The legal hazard of medical practice does not diminish—it constantly increases.

TABLE II

Comparison of the number of members insured in 1925 and 1926 and the number of members in the county societies and the percentage of insured members.

Counties	1925			1926		
	No of Members in County Society	No of Members Insured	Percentage Insured	No of Members in County Society	No of Members Insured	Percentage Insured
Albany	225	126	56	218	125	57
Allegany	33	8	24	33	9	24
Bronx	631	275	44	648	309	48
Broome	99	51	52	102	52	51
Cattaraugus	45	27	60	49	28	57
Cayuga	52	32	62	55	32	58
Chautaugua	82	31	38	93	33	35
Chemung	49	33	67	49	38	77
Chenango	35	16	46	36	15	42
Clinton	32	16	50	33	15	45
Columbia	36	19	33	37	20	54
Cortland	25	11	44	23	8	35
Delaware	20	1	5	19	1	5
Dutchess-Putnam	115	51	44	116	61	52
Erie	653	443	68	672	424	63
Essex	23	11	48	26	11	42
Franklin	51	17	33	48	15	31
Fulton	37	23	62	37	24	65
Genesee	23	9	39	27	9	33
Greene	22	12	55	23	10	43
Herkimer	55	30	55	55	32	58
Jefferson	69	38	55	77	37	48
Kings	1,570	757	48	1,590	831	52
Lewis	14	5	36	13	5	38
Livingston	29	10	34	31	11	35
Madison	32	15	47	35	17	49
Monroe	434	235	54	436	231	53
Montgomery	52	24	46	52	23	44
Nassau	105	51	49	112	57	50
New York	3,338	1,735	52	3,415	1,961	57
Niagara	85	48	56	86	51	59
Oneida	189	77	41	191	77	40
Onondago	312	164	51	321	166	51
Ontario	71	39	55	74	35	47
Orange	104	65	63	105	65	62
Orleans	17	3	18	18	5	27
Oswego	53	33	62	53	30	57
Otsego	42	24	47	43	27	63
Queens	244	122	50	272	146	54
Rensselaer	106	56	53	107	56	52
Richmond	74	39	53	72	38	53
Rockland	39	22	56	41	20	49
St Lawrence	58	19	33	62	21	34
Saratoga	44	27	62	47	22	47
Schenectady	109	91	83	117	86	74
Schoharie	18	7	39	18	6	33
Schuyler	11	5	45	11	5	45
Seneca	21	4	19	23	5	22
Steuben	75	37	49	79	39	48
Suffolk	108	40	37	112	46	41
Sullivan	29	18	62	30	18	60
Tioga	27	9	33	27	10	37
Tompkins	59	22	37	61	27	44
Ulster	64	25	39	63	29	46
Warren	38	25	66	40	26	65
Washington	40	17	43	39	16	41
Wayne	36	16	44	38	18	47
Westchester	308	135	44	324	153	44
Wyoming	26	9	35	26	9	35
Yates	17	13	76	17	15	88
Totals	10,410	5,323	51	10,677	5,711	53

It will be noted that the number of doctors who have availed themselves of the splendid protection afforded by the Society's group plan

of insurance has increased since the last Annual Report by 388 or by two per cent. Fifty-three per cent of all the doctors eligible for this protection have now availed themselves of the opportunity which your Society has so wisely planned for them. Of the larger counties it will be noted that in New York the number of insured men has increased by 226 or four per cent, in Kings by 74 or four per cent, in Queens by 24 or four per cent, in Bronx by 34 or four per cent, in Westchester by 18 (the percentage remaining the same owing to an increase of 60 members in the Westchester County Society). In the larger counties the only falling off is noted in Erie and Onondaga Counties, where there has been a decrease of five per cent in each of these counties.

The group plan is working well. It is a great

time to time the writer has sat through the nervous hours waiting for the jury's verdict, closeted alone with some doctor who had not availed himself of this insurance protection, he wishes he were at liberty to quote the words of sharp regret expressed by those who were awaiting their fate at the jury's hands, knowing that if the verdict went against them it spelled their financial ruin or heavy embarrassment.

During this period your counsel has prepared for publication in the Society's Journal, articles in the nature of editorial comment. The editorials include the following:

'Should not the profession discourage baseless malpractice suits?'

'Protection against law suits.'

Malpractice suits—protection therefrom."

A trial by jury shall remain inviolate forever."

TABLE III
SCHEDULE OF PREMIUMS FOR INSURANCE

LINES B—Being Limits of Liability For All Claims or Suits During Any One Policy Year	COLUMNS A—Being Limits of Liability for Any One Claim or Suit							
	\$5000	\$10000	\$15000	\$20000	\$25000	\$30000	\$40000	\$50000
\$15000	24.00	29.75	34.56					
20000	25.20	30.96	35.76	38.88				
25000	26.16	32.00	36.72	39.84	42.72			
30000	27.12	32.88	37.68	40.80	43.68	45.84		
35000	28.08	33.84	38.64	41.76	44.64	46.80		
40000	28.80	34.56	39.36	42.48	45.36	47.52	50.16	
45000	29.52	35.28	40.08	43.20	46.08	48.24	50.88	
50000	30.00	35.76	40.56	43.68	46.56	48.72	51.36	52.08
60000	30.96	36.72	41.52	44.64	47.52	49.68	52.32	53.04
70000	31.92	37.68	42.48	45.60	48.48	50.64	53.28	54.00
80000	32.64	38.40	43.20	46.32	49.20	51.36	54.00	54.72
90000	33.36	39.12	43.92	47.04	49.92	52.08	54.72	55.44
100000	34.08	39.84	44.64	47.76	50.64	52.80	55.44	56.16

benefit and should be a great source of comfort to the profession at large. The insurance carrier is fully alert to the peculiar needs and the special demands of the medical profession and carries on its work with a full understanding and constant recognition that the primary consideration of the doctor at all times is the due consideration and just preservation of his professional honor. The writer, who has traveled during the past three years throughout the state in the defense of malpractice actions, has never heard a word of criticism of this well-conceived group plan. He has, on the contrary, on all sides heard commendation and appreciation of its value and importance to the Society and approval of its method of operation. From none, as might well be imagined, has more enthusiastic comment come than from those who were unfortunate enough to find themselves engaged in vindicating in court their own professional conduct. From

"A series of five articles entitled "The Government of a profession."

"A bill to license chiropractors to practice medicine."

Some of the cases which have been disposed of by counsel in the past have been digested and published in the JOURNAL, among which were the following:

Claimed breach of contract to cure—death—ether anaesthesia at delivery."

Alleged negligence in operation with resultant loss of ovary."

"Alopecia as a result of X-ray therapy."

"Claimed infection from retained placenta."

"Needle breaking in hypodermoclysis."

"Claimed X-ray burn with resultant ulcer and amputation of leg."

"Infected finger."

"Claimed improper administration of chloroform and operation on carbuncle."

"Claimed dislocation of femur by forceps delivery."

"Injured ankle—subsequent infection."

"Contraction of leg due to operation."

"Lumbar puncture—paralysis—death."

"Uterine tumor, X-ray burn."

'Claimed negligent operation resulting in loss of kidney'
 'Breaking of X-ray apparatus'
 "Negligent treatment of rash on face"
 "Burn from hot sand bag in operation"
 "Fracture of the humerus—Volkmann's paralysis"
 "Colles' fracture"
 "Claimed death as result of tonsillectomy"

In addition to the correspondence necessary in the handling of malpractice cases, general correspondence during the period has included the following

Communication regarding fake diploma mill and fake doctor menace in the United States

Communication regarding legality of corporations engaged in X-ray work

Communications on violations of the Harrison Narcotic Law

Communication on the chiropractor practicing medicine
 Various communications on the use of title "Doctor" by chiropodists

Communication re doctors' dispute of fees

Communication re practice of medicine by corporation

Advice as to right of a nurse to attend injured employees at an employer's private hospital

Communication with reference to the recommended alteration of existing laws wherever necessary so that physicians may legally give contraceptive information to their patients in the regular course of practice

Communication with reference to graduated but unlicensed physician practicing medicine

Communication with reference to the practice of the religious tenets of a church.

Communication with reference to insurance coverage on X-ray apparatus for therapeutic treatment.

Communication with reference to the publicity on chiropractors

Communication with reference to the propriety of the use and advertising of bowel evacuant.

Communication with reference to the form of consent to operation.

Advice as to incorporated society rejecting the names of any or all applicants for membership whose names are not recommended by the membership committee.

Advice as to liability and life insurance pre-clinical work and industrial medicine

Communication with reference to the immunity of a person testifying against another

Inquiry as to malpractice actions based upon failure to do a blood coagulation prior to tonsillectomy

Communication with reference to bill to prevent hereditary blindness

Examination of article to be published in Argus

Communication with reference to the use of instruments to produce a miscarriage

Communication with Bronx County Society with reference to amendment of its constitution and by-laws

Communication with reference to the procedure in re the revocation of a license of a physician

Communication with reference to the question of whether a chief of staff in a hospital would be liable for the errors or mistakes made by his assistants

Communication with reference to the statute of limitations in malpractice actions

Communication with reference to the qualifications of a substitute to take the place of a physician on vacation

Communication with reference to the liability of a physician when requested to attend a patient by a third party

Communication with the district attorney with reference to the use of title "doctor" by chiropodists

Communication with reference to the right of a medical society to conduct a clinic.

Communication with reference to the use of the Alpine lamp on patient sent by the family physician to a county sanatorium for ultra violet therapy

Communication on the right of a surgeon practicing oral surgery to extract teeth.

Communication and advice as to whether pamphlet published by chiropractor was libelous of a physician.

Communication with reference to graduated unlicensed physician being left in charge of the office and practice of a licensed physician

Communication with reference to the collection of a physician's bill from an insurance company

Communication with reference to the right of a physician admitted in another state to be admitted to practice in this state.

Communication with reference to the circulation of a list among the members of a society of the patients in the community who have neglected to pay their medical bills

Communication with reference to the liability of a surgeon where sponge has been left in at the time of operation where the nurse has reported all sponges were accounted for

The questions referred to in these communications often require considerable investigation and careful thought and frequently involve the giving of legal opinions and careful analysis and interpretation of legal questions

ATTENDANCE UPON MEETINGS, ETC

Counsel has personally attended or been represented at the last annual meeting of the Society and at each of the meetings of the Council and Executive Committee during the year

Attended a meeting of the Medical Society of the County of Kings and presented a discussion of the present amendments to the Medical Practice Act, likewise attended a meeting of the Medical Society of the County of Queens and made a similar presentation of the features of the Medical Practice Act

The meeting of the First District Branch held at Poughkeepsie was attended by your counsel and an address made to the meeting

Your counsel and his assistant, Mr Oliver, attended the meeting of the Academy of Medicine and both discussed the legal phases of the paper entitled, "The End Results in Tonsillectomy" In the preparation of this paper your counsel assisted the author, Dr Thomas Harris, furnishing him with information for his paper

Your counsel also attended a meeting of the Society of Medical Jurisprudence and there likewise presented the features of the amendments to the Medical Practice Act

LEGISLATIVE MATTERS

In consultation with the Executive Committee and the sub-committee thereof in charge of the revision of the Constitution and By-laws, your counsel had prepared a bill to amend the Charter of the Society to provide for the creation of a Board of Trustees and has also prepared a memorandum in support of this proposed legislative bill

In consultation with the chairman of the Committee on Constitution and By-laws, a revision

of the Society's Constitution and By-laws, providing for the Board of Trustees and a President elect, was prepared by your counsel.

Your counsel or his associate, Mr. Oliver, attended all of the meetings held by the special committee to draft the Medical Practice Act which met during the past summer and fall and aided and assisted the Committee in the preparation of the Society's Medical Practice Act.

In connection with this legislation, your counsel had also attended conferences at Albany with the Legislative Committee and with the representatives of the State Department, has likewise conferred with members of the Board of Regents and has attended and participated in a joint conference of the Committee on Legislation, the special committee to draft the bill, representatives of the State Department of Education and the Board of Regents, which further considered the proposed Medical Practice Act and discussed further amendments thereto.

In connection with the proposed Medical Practice Act your counsel has prepared various drafts of the bill and had the same rewritten a number of times.

Your counsel has also prepared another bill to provide for furnishing the Board of Regents with the lists of physicians dying during the year.

From time to time during the legislative session, your counsel has received from the Society's Legislative Committee bills which have been introduced in the legislature affecting the medical profession and has examined these bills and expressed his views and given opinions upon the legal phases thereof to the chairman of the Legislative Committee.

Nurses—Your counsel has received communications and reports from the Committee inquiring into the nursing situation and has furnished the Committee with opinions with respect to the various phases of the nursing situation as requested by said Committee, has also furnished the executive officer of the Society an opinion as to the interpretation of Section 250 of the Public Health Law relating to the registration of nurses.

County By-laws—Your counsel has received communications from the Medical Society of the County of Bronx for his opinion on various phases of the amendment of the Constitution and By-laws of that Society, and has examined and passed upon the amended Constitution and By-laws of the Bronx County Society, and has likewise been consulted by the Medical Society of the County of Kings with reference to the amendments of its Constitution and By-Laws.

No one can come actively in contact with the medical profession without being impressed by the high standards of professional honor which it

believes in, espouses and upholds. Throughout the period mentioned in this report as during previous years, there has been at all times expressed and displayed a spirit of helpfulness both to counsel and to the unfortunate defendant doctor who was undergoing the strain and worry attendant upon the defense in court of his professional conduct. Large numbers of physicians have been ready when called upon, regardless of personal inconvenience, to aid counsel in the preparation of cases by giving advice on difficult questions of medicine and of medical procedure and by giving their valuable and important expert testimony in court. It is needless to say how deeply valued and how highly appreciated this disinterested scientific assistance has been, not only by the doctors in whose behalf it has been received, but by your counsel on whose shoulders has rested the burden of the doctors' defense. Men of prominent reputation and outstanding ability in their various specialties, without stint or reservation have given of their knowledge, their time and their strength in vindicating unfortunate brother members whose professional honor has been unjustly impugned and assailed. Counsel wishes it were possible by name to mention all those who have thus disinterestedly come forward in this way. Sincerest thanks and appreciation are hereby extended to all those who have rendered this fine, disinterested assistance. They have rendered true service not only to the cause of science, but to the vindication of professional honor and the administration of justice. As your predecessor so well said in his last Annual Report:

"Were the expert testimony of all branches of law to reach the high level of that which is offered in malpractice cases in behalf of the doctors who have been sued, there would be no stigma attached at any time to that type of testimony, but it would receive the great weight which it justly deserves."

Counsel also desires to express to the Council, Executive Committee and officers of the Society his thanks for their hearty and thorough cooperation in the performance of his task during the past year and to acknowledge the valuable aid given in the performance of all the duties of his office by Mr. Robert Oliver, his associate, as well as by the other associates of counsel in his office. Counsel has also received the active and hearty cooperation of Mr. Harry F. Wanvig, who has charge of the administrative details of the group insurance plan in behalf of the Society and of the officers of the Aetna Life Insurance Company, who have cooperated in the handling and disposition of the cases arising under the group insurance plan, to whom he is grateful.

LLOYD PAUL STRYKER, Counsel

The Reference Committee and the House of Delegates commended the work of the Counsel. They also urged the members of the Society to take out indemnity insurance under the plan advocated by the State Society. Page 464

REPORT OF THE COUNCILLOR OF THE SECOND DISTRICT BRANCH

To the House of Delegates

GENTLEMEN

The annual meeting of the Second District Branch was held at the Hempstead Country Club, Hempstead, Long Island, Oct 13, 1925. At this meeting the District Branch combined with the Associated Physicians of Long Island. The two societies cover the same territory geographically, and have an approximately identical membership. In the afternoon many of the members availed themselves of the opportunity for playing golf on the links of the Hempstead Country Club. The business meeting was held at 5 P. M. Dr. D. S. Dougherty, Secretary of the State Society and Dr. Orrin S. Wightman, Editor-in-Chief of the Journal addressed the society at this meeting. After dinner, served in the club house, Dr. Nathan B. Van Etten addressed the assemblage numbering about one hundred. The session closed with an exhibition of the motion picture film, "Motor Functions of the Stomach" and "Gastric Ulcer," prepared under the direction of Dr. Lewis Gregory Cole.

The four counties in the district have been active during the year. The Kings County So-

cety has continued its activities in graduate medical education, including the Friday afternoon lectures and the program prepared by the Joint Committee for Graduate Medical Education of the Long Island Medical College Hospital and the County Society. Queens County has made a beginning along the same line and is now offering Friday afternoon lectures every two weeks. These lectures have had an average attendance of about 60. In addition the society, by the co-operation of the Medical Staffs and Boards of Trustees of the several hospitals in the county has prepared a program of clinical courses at the hospitals. It is as yet too early to state what degree of success this plan is going to attain.

The work of graduate medical education in Nassau and Suffolk Counties also is going forward. Details will probably be given in the report of the Committee on Graduate Medical Education.

Respectfully submitted,

JOSEPH S. THOMAS,
President

March 15, 1926

REPORT OF THE COUNCILLOR OF THE THIRD DISTRICT BRANCH

To the House of Delegates

GENTLEMEN

As President of the Third District Branch of the Medical Society of the State of New York, I respectfully report as follows:

I assumed office after the meeting of the State Society at Syracuse.

A meeting of the Executive Committee was held in June, at which the affairs of the Branch were discussed in detail, and a program was mapped out for the fall meeting. A good attendance was had.

As an innovation, the fall meeting was held at Twilight Inn, Twilight Park, in the Catskills. About 100 members were present, the program was given in full, and was declared by the members present as one of unusual merit. Close attention was given to every paper, and all reported as having a very instructive program, and a fine time in general. A special effort was made to entertain the ladies present.

A meeting of the Executive Committee was held in November, at which Dr. Shaw, Chair-

man of the State Committee on Legislation, presented a rough draft of the Medical Practice Act, as drawn by the Special Committee of the State Society. The proposed bill was thoroughly discussed by Dr. Shaw, Dr. Lawrence and other members of the committee, and it was unanimously voted to support the bill.

Another meeting of the Executive Committee will be held this month in furtherance of medical legislation.

I have visited, or had visited, every Society of the Branch, and report them all in prosperous condition.

I wish to express my thanks for, and appreciation of the aid given me during the year, by my fellow officers.

The territory covered by the Branch is too great—full 75 miles from one end to the other. In my opinion a change could be made by which the meetings could and would be better attended.

Respectfully submitted,

CHARLES P. McCABE, *President*

March 15, 1926

REPORT OF THE COUNCILLOR OF THE FOURTH DISTRICT BRANCH

To the House of Delegates

GENTLEMEN

I have visited but one County Society in my district during the past eight months

So far as my information goes the County Societies are well organized and active

There are counties in this Fourth District that have no County Society, Hamilton, for example

It is not practical to organize one in this County

I know of only one resident M D in Hamilton County who remains during the entire year

Montgomery County has provided for courses in Post Graduate education, the first

meeting in the course began March 12, 1926

The meeting of the Fourth District Branch last year was held in Amsterdam. Something more than 75 were in attendance

Drs Van Etten and Dougherty, President and Secretary of the State Society, were present, and gave interesting and constructive addresses

Dr Joseph Lawrence, Executive Officer, was present and addressed the meeting

The scientific program was well arranged and proved of great interest

Respectfully submitted,

Horace M Hicks,
President

March 15, 1926

REPORT OF THE COUNCILLOR OF THE FIFTH DISTRICT BRANCH

To the House of Delegates

GENTLEMEN

If we could always make our plans work, as we should desire to, we would accomplish a great deal more than we do, but lack of the necessary time, and the means, often curtail our expectations, but if we always reached our desired goal here, possibly we would not want to die some time and go to Heaven. I had hoped to do more for my district during the last two years than I have been able to do, but our district meetings have been very satisfactory, thanks to my very efficient secretary Dr W J McNerney. I wish also to here express my sincere thanks to Dr Hutchings and Dr Cheney, of Utica State Hospital, for their thoroughly good help at our last fall meeting at Marcy, N Y. Although handicapped by a very rainy day, and roads very slippery, and hard to negotiate, we had a very creditable meeting, over 100 being present from the district. It was a pleasure to welcome to our gathering Dr Nathan B Van Etten, of New York City, President of the State Society. We were also pleased to have with us Dr Frank Overton, editor of State JOURNAL, also Dr Joseph S Lawrence our Executive Secretary. Our meeting was held at Marcy, N Y. Marcy is a branch of Utica State Hospital, and thanks to Drs Hutchings and Cheney we were royally entertained in most comfortable and congenial surroundings, a wonderful luncheon and a good time. Dr Richard H Hutchings, Superintendent of Utica State Hospital, gave an address of welcome and said he hoped more of us would be compelled to come to his hospital, but if we were so compelled, he would see that we had good care.

Dr Clarence O Cheney, Superintendent of Marcy branch of Utica State Hospital, gave a remarkable paper on "Treatment of Paresis with Inoculations of Malaria." He also reviewed the work along the same line by other men in other hospitals. He presented a series of cases, which cases showed the very great improvement of the reaction, brought about by the fever of patients after being inoculated. Dr Wright of Syracuse led in discussion of the paper.

Dr I H Levy of Syracuse gave to the meeting a very scientific discourse on the subject of "Diagnosis of Cancer of the Stomach with Reference to Acid Values." Discussion opened by Dr Clark J Laus of Syracuse.

"Surgical Procedures in Acute Perforating Peptic Ulcers," was well covered by Dr Gilbert D Gregor of Watertown. Discussion was opened by Dr Hyzer W Jones of Utica. After luncheon, business session was held and Dr Charles D Post of Syracuse was elected president of branch for next two years. Dr William J McNerney of Syracuse, our worthy Secretary, was re-elected. Election was followed by a very polished and scholarly address by our genial president, Dr Nathan B Van Etten, who always seems to say the right things at the right times.

Our old friend and public health worker, now Executive Editor of The State Journal of Medicine, Dr Frank Overton, who is always a very welcome guest at our meetings, gave us an instructive and pleasing paper on "Medical Publicity."

Dr Joseph S Lawrence, Executive Secretary, gave a well thought out plan on "Some Opportunities of the District Branch."

"Post Graduate Medical Education" was scientifically presented by our very good friend from Syracuse, Dr. Herman C. Wolkotten, member of Committee on Public Health and Medical Education and Commissioner of Health of Syracuse.

Dr. Henry W. Schoenbeck of Syracuse gave us one of the best papers of the day on the subject "Relief Measures During Labor."

Dr. George H. Bonnefond of Utica opened discussion on paper. A very splendid meeting, thanks to all who helped to make it so.

I believe our income as a State Medical Society is about \$100,000 per annum. Now let's remind the trustees to be of the State Medical Society that \$100 a year to supply means to care for District Branches of our society is a joke, but possibly no joke to the presidents of the District Branches when they expend, some of them a few hundred dollars a year, to try and make the Branch do the work it should. One thousand dollars could easily be used to advantage by each Branch in increasing the work which has already been begun.

I have been unable to visit as many county meetings as I had hoped to do, but I have kept tabs on work by doctors in the Fifth District and it has been of a high order and generally efficient.

Orondaga County, with a college town, Syracuse, in the county, has a large and very excellent Society. It also has an Academy of Medicine that is doing good work. Its health activities, asisted as they are by the Milbank Foundation, are of a high order.

Oneida County Society is a large and thoroughly alive organization.

Herkimer County has a very active and worthy society and the men are thoroughly up to date.

Jefferson County has a large society and the men are active. Watertown has a good academy of medicine.

Lewis County has a good society, while not so large as some counties, it has good men.

Oswego County has an active society well manned and working well. Oswego and Fulton all have good and active men.

Madison County has a small society, but it always functions well. Three meetings each year are held in which there is always much interest.

Respectfully submitted,

NILSON O. BROOKS,
President

March 15, 1926

REPORT OF THE COUNCILLOR OF THE SEVENTH DISTRICT BRANCH

To the House of Delegates:

GENTLEMEN:

Since the Annual Meeting at Syracuse the activities of the Seventh District Branch have consisted of one meeting at Auburn on Thursday, September 24th. The program as follows:

"The Treatment of 'Le Doulaureux,'" Ward Williams, M.D., Rochester, N. Y.

"The Treatment of Scarlet Fever," Perry A. Bly, M.D., Municipal Hospital, Rochester, N. Y.

"Correct Control Education in Litch County," John M. Swan, M.D., Rochester, N. Y.

"Certain Aspects of Ureteral Structure," Alfred K. Bates, M.D., Auburn, N. Y.

Discussion opened by Dr. Thomas F. Laurie, Syracuse, N. Y.

"Infections of the Hand," Harry R. Trick, M.D., Buffalo, N. Y.

Discussion opened by Dr. W. W. Skinner, Geneva, N. Y.

"Results Obtained from Long Continued Use of Insulin," John R. Williams, M.D., Rochester, N. Y.

"Bonesetters, Chiropractors, et al," E. T. Wentworth, M.D., Rochester, N. Y.

"Problems of the State Society," by the President and Secretary of the State Society.

The papers were all freely discussed.

The bi-annual election of officers was held and the following are the new officers:

Claude C. Lytle, M.D., Geneva, N. Y., President, G. Kirby Collier, M.D., Rochester, N. Y., 1st Vice-President, Alfred W. Armstrong, M.D., Camandaigua, N. Y., 2d Vice-President, John A. Lichty, M.D., Clifton Springs, N. Y., Secretary, E. T. Wentworth, M.D., Rochester, N. Y., Treasurer.

The Cayuga County Medical Society acted as host and a very delightful luncheon was served. There were about one hundred members present.

The Counties of Wayne, Ontario, Livingston and Monroe were visited by the District President and found to have good attendance. They were keenly alive to the medical problems of the State Society and had excellent scientific programs.

Respectfully submitted,

WILLIAM I. DEAN,
President

March 15, 1926

REPORT OF THE COUNCILLOR OF THE EIGHTH DISTRICT BRANCH

To the House of Delegates

GENTLEMEN

For the past several years the work of the various County Societies has been carried on so directly with the State Society, especially since the inauguration of an Executive Officer, that the work of the Councillor has been limited very largely to attending Council Meetings, Hearings, etc., and the preparation of the program for the Annual Meeting.

The Annual Meeting of the Eighth District Branch has been reported in a previous issue of the JOURNAL.

The component County Societies of this Dis-

trict are alert and active and are co-operating wholeheartedly with the officers of the State Society in their various activities.

At the present time the entire Eighth District Branch is grieving over the loss of our beloved leader, Dr Grover W Wende.

We are stunned by the suddenness and awfulness of this calamity, but his influence is still strong among us and we hope soon to be able to take up our burdens again and to carry on the work as he would want us to do.

Respectfully submitted,

HARRY R. TRICK, *President*

March 15, 1926

REPORT OF THE SPECIAL COMMITTEE TO INCREASE FELLOWSHIP OF THE AMERICAN MEDICAL ASSOCIATION

To the House of Delegates

GENTLEMEN

I am sorry to say that the committee to canvass the State for membership in the American Medical Association has nothing to report. I have had letters from several secretaries of county societies refusing to act in their county as a member of this committee. I believe I was appointed myself without being asked if I could so serve.

Furthermore the state society did not state whether there were funds available for me to engage the necessary clerical assistance. I have been so busy myself that the year has passed before I realized that the annual meeting of the State society was about here.

Respectfully submitted,

Harrison Betts, *Chairman*

March 15, 1926



HOUSE OF DELEGATES



The Annual Meeting of the House of Delegates of the Medical Society of the State of New York was held at the Hotel Waldorf-Astoria, New York City, N Y, Monday afternoon, March 29, 1926, at two o'clock. Speaker, Dr E. Eliot Harris, presiding, Dr Daniel S Dougherty, secretary. The Speaker announced that the secretary would call the roll by counties, for the purpose of determining the presence of recognized delegates. A quorum being present, the House was declared by the Speaker organized for business.

REPORT OF COMMITTEE ON CREDENTIALS

The Speaker The first order of business is the report of the Committee on Credentials, Dr Dougherty.

Dr Dougherty Mr Speaker and gentlemen, the Committee on Credentials have the pleasure of reporting that there is no duty for them to perform, as there are no disputed delegations. In looking over the list of the House delegates I find that some of the delegates are also officers of the Society. I would like to have a ruling as to the voting of those gentlemen, whether they can vote as officers and as delegates, or whether they must determine in which capacity they shall vote.

The Speaker In this House each member of the House is an individual and as an individual he has one vote.

Dr Rooney, Albany In view of the ruling of the Chair that each member of the House as an individual has a right to vote, I would like to ask whether that in the opinion of the Speaker relates to past presidents of the Society who in accordance with the constitutional provision have been members of this House but without vote.

The Speaker It is provided in the constitution that they are members of the House with voice but without vote, and there is no ruling or action of this house that can overrule the constitution and by-laws.

Dr Podzun, Bronx In Bronx County we have one of our regularly elected delegates who is a member of a Standing Committee. I understand that as chairman of the Standing Committee he is a member of this House, is that correct?

The Speaker That is correct.

Dr Podzun Would it be within our power to substitute an alternate in his place as delegate?

The Speaker That is repeatedly done where the elected delegate does not wish to register as a delegate. His alternate may take his place.

Dr Podzun He will have a vote in the House.

The Speaker Yes, after he passes the Committee on Credentials.

IN MEMORIAM OF DRs SUITER AND WENDE

The Speaker It is my sad duty to call the attention of this house to the death of two members since we last met—Dr A. Walter Suiter and Dr Grover W. Wendé, ex-presidents of this Society. I shall ask the House to rise and remain standing for two minutes in silence out of respect to the memories of Dr A. Walter Suiter and Dr Grover W. Wendé, former presidents of this Society. The House will please rise.

The House thereupon rose and remained standing in silence for two minutes in respect to the memories of Dr A. Walter Suiter and Dr Grover W. Wendé, deceased.

APPROVAL OF MINUTES

The Speaker The minutes of the previous meeting have been published. Are there any corrections or additions? Hearing none, they will stand approved as printed and it is so ordered.

PRESIDENT'S ADDRESS.

Next is the address of the President, Dr Van Etten. *President Van Etten* I have no desire to add materially to the president's address as printed in the report (see p) I would simply feel that it were discourteous perhaps to you not to reiterate my thanks and appreciation of the honor which you have conferred in electing me to the presidency of the greatest Medical Society in the world. I entered upon this office with a sense of a good deal of responsibility and with a great deal of apprehension. I found that while there was a great deal of responsibility, there was not much apprehension because everybody in the Society seemed determined to give me a very good time. I have had a perfectly delightful year. I have met more members than I ever met in my life before. I have had a remarkable spirit of cooperation and reciprocity. I have been delightfully entertained all over the state. One of the best times I had was given to me by a doctor who cooked the dinner himself, served it himself, in one of the most delightful atmospheres that one could possibly wish.

This administration has been a very busy one, as it naturally would be with the increased opportunities that have been offered. If the administration has failed in any wise, it has been due entirely to defects of the head and not of the heart. If the administration has succeeded, the success of this administration is due to the remarkable cooperation of the committee chairmen, of the committeemen, and of all the other officers of the Society. To the Executive Committee I wish to pay especial tribute. I think no man ever had a better Executive Committee than I have had. The members of this committee have attended every meeting that they were physically able to attend and have given close, undivided, concentrated attention to the problems of the Society. If there has been any success in the past year, it has been due to the work of the committee heads, the Council and the Executive Committee, and to the cooperation of you all. I thank you.

SPEAKER'S ADDRESS

The Speaker The next is the address of the Speaker. As that has been printed, I shall ask consent that it be referred without being read.

Upon motion duly made, seconded and carried, the address of the Speaker was referred to the proper Reference Committee, as was also the address of the President.

REFERENCE COMMITTEES

Dr Dougherty I move that every other report be sent to the proper Reference Committee as printed, without reading them before this House of Delegates. Seconded and carried.

The Speaker Mr Secretary, please read the Reference Committees as appointed by the speaker.

The Secretary Dr Dougherty Reference Committee on Speaker's Address—Constitution and By-Laws—Andrew Sloan, Oneida Chairman, J. Richard Kevins, Kings, Harry Aranow, Bronx, Floyd S. Winslow, Monroe, William B. Hanbridge, St. Lawrence.

Reference Committee on President's Address—Frederic E. Sondern, New York, Chairman, Charles R. Borzilleri, Erie, W. Francis Campbell, Kings, Thomas C. Chalmers, Queens, Edward W. Weber, Westchester.

Reference Committee on Reports of Secretary and Treasurer—Henry C. Courten, Queens, Chairman, James N. Vander Veer, Albany, George W. Cotus, Chautauqua, George R. Critchlow, Erie, George A. Leitner, Rockland.

Reference Committee on Report of Committee on Legislation—John E. Jennings Kings, Chairman, Henry S. Patterson, New York, Addison H. Bissell, Otsego, Herbert B. Smith, Steuben, Luther C. Payne, Sullivan.

Reference Committee on Reports of Committee on Public Health and Medical Education—Edward C. Podvin, Bronx, Chairman, Robert H. Halsey, New York, Luther Emerick, Ulster, John Douglas, New York.

Reference Committee on Report of Committee on Scientific Work—O. Paul Humpstone, Kings, Chairman, Cornelius J. Egan, Bronx, Reeve B. Howland, Chemung, Henry G. Hughes, Schenectady, Luzerne Coville, Tompkins.

Reference Committee on Reports of Council and Councillors—William P. Healy, Chairman, New York, George A. Newton, Nassau, Arthur G. Bennett, Erie, J. Lewis Amster, Bronx, George Mord, Richmond.

Reference Committee on Report of Legal Counsel—Terry M. Townsend, New York, Chairman, Thomas W. Jenkins, Albany, John L. Edwards, Columbia, Homer J. Knickerbocker, Ontario, George M. Cady, Tioga.

Reference Committee on Report of Committee on Medical Economics—Charles E. Scofield, Kings, Chairman, Arthur J. Bedell, Albany, Frederick J. Schnell, Niagara, Edward B. Jones, Onondaga, Ernest E. Smith, Queens.

Reference Committee on Report of Special Committee on Nurses—Samuel J. Kopetzky, New York, Chairman, Chauncey R. Bowen, Allegany, George D. Johnson, Chautauque, William A. Jewett, Kings, W. Grant Cooper, St. Lawrence.

Reference Committee on New Business—A—Frank M. Dyer, Broome, Chairman, William M. Dunning, Bronx, John E. Safford, Delaware, Joseph B. Hulett, Orange, Peter L. Harvie, Rensselaer.

Reference Committee on New Business—B—Walter D. Ludlum, Kings, Chairman, Lyle B. Honeyford, Greene, Warren Wooden, Monroe, William R. Thomson, Wyoming, William H. Cantle, Westchester.

Reference Committee on New Business—C—DeWitt Stetten, New York, Chairman, Raymond C. Almy, Cayuga, Earl P. Lothrop, Erie, John R. MacElroy, Saratoga, John A. Hatch, Yates.

Reference Committee on Credentials—Daniel S. Dougherty, New York, Chairman, John P. J. Cummins, Essex, Sidney F. Blanchet, Franklin, Arthur W. Albones, Herkimer, J. Leonard Byrnes, Washington.

The Speaker The next is unfinished business.
Dr. Kopetzky In regard to the references in the President's address there is a reference to the nursing situation, which has a direct bearing upon the report of the Special Committee on Nursing. May I ask you sir whether it would be appropriate to refer that portion of the President's address to the same reference committee that is dealing with the subject of nursing so that the Reference Committee might have the topic from both angles before it?

The Speaker The Speaker will order that that portion of the report of the President which relates to nurses be referred to the Committee on Nursing.

ENDORSEMENT OF MEDICAL PRACTICE ACTS, AND LEGALITY OF ACT OF THE COUNCIL

Now we are under the heading of new business.
Dr. Brennan Kings At the regular meeting of the Medical Society of the County of Kings held March 16th, 1926 the following resolutions were adopted:

The delegates from the Medical Society of the County of Kings to the House of Delegates of the Medical Society of the State of New York are directed to present and urge the adoption of the following resolutions:

"RESOLVED That no medical measure affecting the welfare of the medical profession of New York State be proposed or sent to the State Legislature unless a referendum vote be taken by the separate county medical societies and approved by a majority of them.

RESOLVED The State Legislative Committee shall not endorse or approve in the name of the Medical Society

of the State of New York any medical practice act or amendment thereto, without referendum to the component County Medical Societies following notification to every member of the State Society by prompt publication of proposed legislation in the "New York State Journal of Medicine" or a bulletin thereof.

That the attention of the House of Delegates of the Medical Society of the State of New York be hereby directed to the failure on the part of the Council to act in accordance with a direct order of the House of Delegates at the last session with reference to the Medical Practice Act.

Referred to Reference Committee on New Business—B (Report on page 461)

MALPRACTICE DEFENSE

Dr. Ross, Suffolk I desire to offer the following resolution:

WHEREAS, There was adopted by the House of Delegates at their annual meeting, May 11, 1925, the following resolutions:

1. Members shall be entitled to malpractice defense of any suit arising from any one claim in each calendar year, of alleged malpractice error or mistake done in the performance of his profession as a physician.

2. The Society shall not at its own expense appeal from any judgment that may be entered against a member in any malpractice suit.

3. The Society shall not be obligated to defend any malpractice claim or suit against any member when such claim or suit is covered by any policy of insurance carried by such member.

But nothing herein contained shall be deemed to curtail, abrogate, or restrict, the rights of any member under the group insurance plan endorsed by the Society.

THEREFORE BE IT RESOLVED, That said resolutions be and hereby are rescinded."

TIME OF MAKING ANNUAL REPORTS

I also offer the following resolution:
"RESOLVED That the Council shall have the power to decide whether or not a member is entitled to legal defense by the State Society against alleged malpractice claim or suit, and how many times, and to what extent he shall be defended for any claim or suit, and what aid shall be rendered in case of appeal from judgment of the court, and the procedure for conducting the defense shall be that authorized by the House of Delegates April, 1914 and such other rules and regulations as the Council may authorize." Page 460.

Dr. Ross I also offer the following resolution:
"RESOLVED That the annual reports of all officers and committees, to the House of Delegates, shall be submitted to the Council one month in advance of the annual meeting of the House of Delegates, to be published in the Journal before the annual meeting, and the Chairman of the Executive Committee shall supplement at the annual meeting of the House of Delegates his written report with a verbal or written report of the activity for the last month."

Referred to Reference Committee—B (Report on page 461)

CONTRIBUTIONS FOR CANCER CONTROL

Dr. Henry Monroe I offer the following resolution:
"WHEREAS, in an attempt to prevent the further increase of deaths from malignant tumors, the New York State Committee of the American Society for the Control of Cancer has inaugurated a three year educational program in the State of New York.

AND WHEREAS The New York State Committee of the American Society for the Control of Cancer expects to finance this program by asking for voluntary contributions from each County in the State on a basis of \$7.25 per thousand population.

THEREFORE BE IT RESOLVED by the House of Delegates of the Medical Society of the State of New York that

they approve of this program and that they recommend that all physicians support it and recommend its support to the people in their communities."

Referred to Reference Committee on New Business
—A (Report on page 460)

DISTRICT BRANCHES, REARRANGEMENT OF

Dr MacFarlane, Albany Presented the following plan for the re-districting of the District Branches

First District to include the Counties of Bronx, Dutchess, New York, Orange, Putnam, Rockland, Sullivan, Ulster, Westchester

Second District to include the Counties of Kings, Nassau, Queens, Richmond, Suffolk

Third District to include the Counties of Albany, Columbia, Greene, Montgomery, Rensselaer, Schenectady, Schoharie

Fourth District to include the Counties of Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren, Washington

Fifth District to include the Counties of Herkimer, Jefferson, Lewis, Madison, Onondaga, Oneida, Oswego, St Lawrence

Sixth District to include the Counties of Broome, Chenung, Chenango, Cortland, Delaware, Otsego, Tioga, Tompkins

Seventh District to include the Counties of Cayuga, Livingston, Monroe, Ontario, Schuyler, Seneca, Steuben, Wayne, Yates

Eighth District to include the Counties of Allegany, Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Orleans, Wyoming

The Speaker As that is an amendment to the Constitution and By-Laws, it will be placed on file with the Secretary

SARATOGA SPRINGS, STATE MINERAL WATER RESERVATION

Dr MacElroy, Saratoga I beg to offer the following
"WHEREAS The Medical Society of the County of Saratoga has adopted the following resolution

"WHEREAS The Conservation Commission of the State of New York has announced comprehensive plans for the development of the State Mineral Water Reservation at Saratoga Springs including many provisions for the therapeutic uses of the waters, and

"WHEREAS The therapeutic applications of the mineral waters constitute a medical problem whose solution and application belong to local physicians, therefore, be it

"RESOLVED That the Medical Society of the County of Saratoga accepts the responsibility that falls upon it as the group of physicians nearest the proposed development of a public utility having an important medical phase, and be it further

"RESOLVED That the Society approves the plans of the Conservation Commission

"THEREFORE BE IT RESOLVED That the House of Delegates of the Medical Society of the State of New York in stated session approves the principles of the action embodied in the resolution"

Referred to Reference Committee on New Business
—A Report on page 460

REFERENDUM IN LEGISLATIVE MATTERS

Dr Dyer, Broome The constitution provides that when the House of Delegates is not in session the duties of the House of Delegates may be exercised by the Council and the by-laws provide that all committees shall report and be subject to the Council, also that the Council—and here is a cause of misunderstanding on the part of some of the individuals—in section twenty-four provides that the Council in any legislative action shall take a referendum vote To clear up that feature and to make sure that no committees shall inaugurate direct legislative action themselves without reporting to the Council and the Council shall take a referendum vote, the County of Broome offered an

amendment to the present section 54 of the by-laws which shall read, after the present last line, in regard to the Committee on Legislation "It shall not present to the Legislature of New York State or sponsor legislation affecting medical practice until approved by the House of Delegates"

The Speaker As that is a proposed amendment to the By-Laws, it will be placed on file with the Secretary
Dr Eastman, Ulster In line with the foregoing resolution Ulster County voted to submit the following resolution to the House of Delegates

"RESOLVED, That no Medical measure affecting the welfare of the medical profession of New York State be proposed or sent to the State Legislature unless a referendum vote be taken by the separate county medical societies and approved by a majority of them."

Referred to Reference Committee on New Business
—C Page 461

FUNCTION OF VISION, DEFINITION OF

Dr Bedell, Albany "RESOLVED, That the House of Delegates of the Medical Society of the State of New York re-affirms its approval of its former resolution that it considers the function of vision to be a compound act consisting of three factors central visual acuity, field of vision, and muscle function"

Referred to Reference Committee on New Business
—B (Report on page 461)

The Speaker Any further new business?

Dr Lytle, member of the Committee on Nurses, would like to present his views Before they can be received, he must have the consent of the House, I will put the question All those in favor of receiving the minority report presented by Dr Lytle will please say aye, opposed, no Carried

Dr Lytle read the minority report of the Committee on Nursing (See pages 442 and 459)

Referred to Reference Committee on Nursing

REPORT OF SPECIAL COMMITTEE ON WORKMEN'S COMPENSATION

Dr Critchlow, Erie As a matter of information I would like to ask what is to be done with the report of the Special Committee appointed by the President on Compensation Law This report, I understand, was not ready in time to be published with the other report but the report is in the hands of the Secretary I simply wanted to ask for information, whether that comes up now as a matter for reference.

The Speaker That report was referred to the Committee on Legislation

Dr Rooney, Albany It occurred to me if the report has not been published that perhaps the House might wish to hear at least the conclusions of the report, not of necessity the argument but the conclusion of the report, and I would, therefore move you sir, that the conclusions of this report be read so that they might be presented to the House. Seconded

The Speaker It is moved and seconded that the report on the Workmen's Compensation be read, or the conclusions of it, for the enlightenment of the House. All in favor of that motion say aye. All of those opposed no Carried

The report was read (see page 432)

Report was referred to the Reference Committee on Legislation Page 465

COUNSEL'S ADDRESS

The Speaker Members of the House of Delegates, since we last met Mr Whiteside has made other business connections and his partner Mr Stryker, has assumed the duties of Counsel to the State Society in order that we might become acquainted with him, I am going to ask Mr Stryker to address you

Mr Stryker Mr Speaker and members of the House of Delegates I appreciate very keenly the honor that the speaker has conferred upon me in permitting me to

introduce myself to you. My partner, George Whiteside is known to every man in this room. He has left you but his spirit and his interest in you have not gone, and the ideals and the standards that George Whiteside had in maintaining the high standards of the medical profession are those towards which I shall aim.

I see here in this room many old friends from other countries in the state, men that I have met under other circumstances sometimes more hectic even than these.

Gentlemen, I will not detain you except to say that in the two months since I have acted as counsel for the Society I have been impressed anew by the public spirit and the zeal and the interest which the members of your Council and Executive Committee, your officers and your individual members have shown in the Society's welfare. I have had occasion to battle with them and for them in the halls of the legislature on more than one occasion already, and we trust that good results will come from that.

It is a great pleasure to be here before you, gentlemen, and I bring to you George Whiteside's message of good will, regard and good wishes. I thank you for this opportunity to say "How do you do?"

The Speaker If there is no further new business I will entertain a motion for a recess. On motion, seconded and carried, a recess was taken for thirty minutes.

REFERENCE COMMITTEE ON NURSING

The Speaker Is the Reference Committee on Nursing ready?

Dr Kopetsky, New York The Reference Committee on Nurses has had under consideration that portion of the President's address referring to nurses the report of the Committee on Nurses and the minority report handed in by Dr Lytle of the Committee on Nurses, and after studying all angles of the questions presented, recommends as follows:

First The establishment of an official Nurses' Registry in every county of the state on the model of the one already established and functioning in Buffalo.

Second The Committee approves and would have the State Journal carry the approval of all commercial registries who send out nurses for bedside work with a card stating the type of nurse presenting the card whether this individual be a registered nurse, an under graduate nurse a trained attendant, etc., and that the County Societies through appropriate committees get in touch with commercial registries to induce them to seek approval from the State Society of its delegated officer or committee in carrying out the above provision.

Third The Committee heartily approves the recommendation of the President of the Society that there shall be a basicaly trained nurse, specifically trained for bedside work and that this training does not necessarily qualify such a nurse for executive positions of public health work without subsequent further study on her part. In line with this idea your Committee approves the recommendation of the Committee on Nursing that the President appoint a committee to confer with similar committees from the State Hospital Association and the State Educational Department to formulate a basic course of study for the bedside nurse stressing the practical sides of nursing and reducing to the minimum the purely theoretical training, that this nurse shall be known under the general title of trained nurse, and that the conferences of these committees should be so directed that certain hospitals having a specific problem to meet in the community who will graduate nurses in this group shall be approved by the State Department of Education and thus supply the needed want in the community of bedside nurses.

The above course shall be so arranged that any nurse graduating under its curriculum and later desiring the higher degree of R. N. shall be able to continue her

studies in a school approved by the Regents for giving the supplementary course so that she may eventually be enabled to take the examinations to qualify for R. N.

Your Committee disapproves the Minority Report presented by Dr Lytle as it is impracticable and we doubt the advisability of influencing the curriculums in the high school. Your committee realizes that if we can modify the curriculum in the hospital training schools at the present time, we will have accomplished all that we can hope to without going into the high schools to put into effect a pre-nursing high school curriculum. Page 458.

Fourth In conclusion your Committee feels that while investigations have been made by the Committee on Nursing of many aspects of the Nursing Problem, the one salient aspect of the question has not been studied, and we recommend that the Nursing Committee be continued for another year and that during that year the committee by means within its power endeavor to compile the information as to exactly what the physician demands the needs of the nurses that he uses. Such information would be of great importance to both the nursing profession and the educational department of the Regents in the modification and the formulation of standards for nurses.

The Speaker Will the Chairman of the Committee please read his recommendation by sections?

Dr Kopetsky The establishment of an official Nurses' Registry in every county of the state on the model of the one already established and functioning at Buffalo. I move its adoption.

The Speaker All those in favor of the question say aye opposed, no. Carried.

The next section?

Dr Kopetsky The Committee approves and would have the State Journal carry the approval of all commercial registries who send out nurses for bedside work with a card stating the type of nurse presenting the card whether this individual be a registered nurse an under graduate nurse a trained attendant, etc., and suggests that the County Societies through appropriate committees get in touch with commercial registries to induce them to seek approval from the State Society or its delegated officer or committee in carrying out the above provision.

The trouble is they call up a registry at the present time and ask for a nurse, and they send out a registry nurse. They may send you an under-graduate, particularly in the large cities, and they charge the same for all of them. If the County Societies would pass a resolution appointing a committee to supervise this thing, get in touch with these registries, and make the nurse present a card, make the nurse who comes on the case present a card so that the doctor can look at the card and see what kind of nurse is coming, she could be paid accordingly. The registry carrying the approval of the State Society is the commercial inducement by which we hope, by moral suasion, to get the commercial registries in line. Where both the doctor and the commercial registries cooperate to defeat the purposes of the State Society in this matter, nothing can be done. It is a matter for moral suasion.

I move the adoption of that recommendation.

The Speaker As there has been a bill introduced in the legislature in regard to the licensing of nurses registries, I will ask Mr Oliver to inform the House as to its enacting clause.

Mr Oliver That bill was an amendment to the general business law with reference to employment agencies, providing that all nurses' registries shall be licensed under the licensing authorities of the particular cities as already provided in the law, and further providing that the nurses sent out from the respective registries shall carry with them, and there shall be forwarded within twenty-four hours to the patient or the person calling for a nurse a card which will state the qualifications of the nurse, including whether or not she

is a graduate nurse or trained nurse, and if not a graduate nurse, where her training has been received from what hospital and for what length of time, and the cost of her services. I think in substance that is what was included in that bill.

The Speaker All those in favor of the adoption of the recommendation on nurses' registries say aye, opposed, no. Carried.

Dr Kopetzky Third, That the Committee heartily approves the recommendation of the President of the Society that there shall be a basically trained nurse specifically trained for bedside work and that this training does not necessarily qualify such a nurse for executive positions of public health work without subsequent further study on her part, and that in line with this idea your Committee approves the recommendation of the Committee on Nursing that the President appoint a committee to confer with similar committees from the State Hospital Association and the State Educational Department to formulate a basic course of study for the bedside nurse stressing the practical sides of nursing and reducing to the minimum the purely theoretical training. That this nurse shall be known under the general title of trained nurse and that the conferences of these committees should be so directed that certain hospitals having a specific problem to meet in the community who will graduate nurses in this group shall be approved by the State Department of Education and thus supply the needed want in the community of bedside nurses.

The above course shall be so arranged that any nurse graduating under its curriculum and later desiring the higher degree of R. N., shall be able to continue her studies in a school approved by the Regents for giving the supplementary course so that she may eventually be enabled to take the examinations to qualify for R. N.

In making the motion to approve the adoption of this recommendation, I again say that the details are left to the committee. We are simply enunciating a general principle and asking the appointment of such a committee. Seconded.

Dr Booth, Chemung I would ask the chairman of the Reporting Committee if he could not also include the State's Nurses' Association. Their advice will be very valuable to any such conference.

The Speaker Will you make that as an amendment?

Dr Kopetzky New York I am willing to accept the amendment.

Dr Ludlum, Kings It is not the State Hospital Association, but the Hospital Association of the State of New York, in contra-distinction to the State Hospital Association.

The Speaker That title will be changed as newer knowledge indicates. Is there any further discussion?

Dr Kopetzky I move the adoption of the recommendation as amended.

Dr Rooney, Albany The New York State Association of Nurses is the one that is by law represented on the Board for Nurses Registration.

The Speaker Is there any further discussion? All those in favor of the recommendation as amended, say aye, opposed, no. Carried.

Dr Kopetzky, New York Fourth, In conclusion your Committee feels that while investigations have been made by the committee on Nursing of many aspects of the Nursing problem, the one salient aspect of the question has not been studied and we recommend that the Nursing Committee be continued for another year and that during that year the Committee by means within its power endeavor to compile the information as to exactly what the physician demands and needs of the nurses that he uses. Such information would be of great importance to both the nursing profession and the educational department of the Regents in the modification and the formulation of standards for nurses. I move the adoption of that. Seconded. Carried.

Dr Kopetzky, New York I move the adoption of

the report of the Reference Committee on nurses as a whole as intended. Seconded. Carried.

CANCER CONTROL.

The next Committee on Reference—A.

Dr Dyer, Chairman of Reference Committee A In regard to the resolution bearing on the program of the New York State Committee of the American Society for control of cancer, the Committee recommends that the House of Delegates approve of their program. I move its adoption. Seconded and carried. Page 457.

Dr Dyer In regard to the program of the Conservation Commission of the State of New York in connection with the mineral springs at Saratoga Springs, the Committee move the adoption of the resolution that the House of Delegates approve that program. Seconded and carried. (See page 458.)

MALPRACTICE DEFENSE.

Dr Ludlum, Chairman, Reference Committee B I think Dr Ross's three resolutions had better be read.

"WHEREAS, There was adopted by the House of Delegates at their annual meeting, May 11, 1925, the following resolutions

"1 Members shall be entitled to malpractice defense of any suit arising from any one claim in each calendar year, of alleged malpractice error or mistake done in the performance of his profession as a physician.

"2 The Society shall not at its own expense appeal from any judgment that may be entered against a member in any malpractice suit.

"3 The Society shall not be obligated to defend any malpractice claim or suit against any member when such claim or suit is covered by any policy of insurance carried by such member.

"But nothing herein contained shall be deemed to curtail, abrogate, or restrict, the rights of any member under the group insurance plan endorsed by the Society.

"THEREFORE, BE IT RESOLVED, That said resolutions be and hereby are rescinded." (See page 457.)

We approve the resolution as offered and recommend its adoption—that is the resolution being to rescind the previous resolutions. Seconded and carried.

The Speaker Next?

Dr Ludlum "RESOLVED, That the Council shall have the power to decide whether or not a member is entitled to legal defense by the State Society against alleged malpractice claim or suit, and how many times, and to what extent he shall be defended for any claim or suit, and what aid shall be rendered in case of appeal from judgment of the court, and the procedure for conducting the defense shall be that authorized by the House of Delegates, April, 1914, and such other rules and regulations as the Council may authorize."

This is an affirmative resolution taking practically the same action as the rescinding of the other, and carrying it further. The Reference Committee approved and I move the adoption of the Resolution.

The Speaker The By-Laws provide that the Executive Committee shall act as advisor to the legal counsel. A correction has to be made to agree with the By-Laws under section thirty.

Dr Rooney, Albany I think the House might be interested in knowing just exactly what the resolutions of 1914 say. If we are practically going back to the provisions as made in that resolution, it seems to me we cannot vote intelligently without knowing what is in that resolution. I would, therefore, request that the resolution that covers this most essential matter of malpractice be read in order that we may know what we are going to do.

Dr Ross Mr Speaker, do you desire the resolution adopted April 27 1914, read?

The Speaker Yes.

Dr Ross The resolutions adopted by the Council at its meeting December 5th 1913 and adopted by the House of Delegates April 27th 1914.

First Members shall not be entitled to malpractice defense if the acts in the suit for which they make application for defense were committed prior to their admission to membership in the State Society

Second Members who have been dropped for non-payment of dues, if reinstated shall not be entitled to malpractice defense for acts committed during the time they were not members of the Society

Third Active members of the Society desiring to avail themselves of the privileges of this act shall make application therefor in writing to the Secretary of the Society, and it shall be shown to his satisfaction that they are members in good standing in the State Society. They shall also furnish the Secretary a complete and accurate statement of their connection with, and treatment of, persons upon which complaints against them are based giving dates of attendance, names and residences of nurses and of other persons cognizant of facts and circumstances necessary to a clear and definite understanding of all matters in question and shall furnish such other relevant information and execute such papers as may be required of them by the Secretary or the Attorney of the State Society

Fourth A member shall agree not to compromise any claim against him, nor to make settlement in any manner without the advice or consent of the Society given through its Attorney

Fifth In the event that a member sued or threatened with suit shall, without the advice or consent of the Attorney of the Society determine to settle or compromise any claim against him, he shall reimburse the Society for the expenses incurred in undertaking his defense, and in default thereof, he shall be deprived of further privileges under this resolution

Sixth The Society shall not assume any responsibility for the payment of any sum agreed upon by arbitration in the settlement of claims or awarded by court verdicts or for making payments for any purpose whatsoever

Dr Rooney Albany I move an amendment of this resolution in order to bring it into conformity with the present by-laws, where it specifies the secretary and the Counsel of the Society by adding the words "The Executive Committee," so that it will read "The Secretary, the Executive Committee and the Counsel" I move, Mr Speaker, that the old resolution which has been submitted to this House for approval by the Chairman of this Reference Committee be amended so that in the third paragraph there shall be added the words following "The Secretary" these words "the Executive Committee and the Counsel of the State Society"

The Speaker The legal counsel?

Dr Rooney Yes

Dr Ross Now, the actual resolution of the committee has been amended in accordance with the direction of the Chair so that it reads "The Executive Committee of the Council shall have the power" etc "to decide," and in the last sentence also it has "the executive committee may authorize" I was in process of reading in as I understand it that the old resolution of April 27, 1914, shall be so amended that following the words "the secretary" "the executive committee and legal counsel" shall appear

Seconded

The Speaker Are you ready for the question? All those in favor of the amendment of Dr Rooney say aye, opposed no

Carried

All those in favor of the recommendation of the Committee as amended say aye, opposed, no

Carried

TIME OF MAKING ANNUAL REPORTS

Dr Ludlum A further resolution by Dr Ross—That the annual reports of all officers and committees of the House of Delegates shall be submitted to the Council one month in advance of the meeting of the House of Delegates to be published in the Journal before the annual meeting and the council shall supplement at the annual meeting of the House of Delegates its written

report with a verbal or written report of the activities during the last month (See page 457)

The Speaker All those in favor of the recommendation say aye, opposed, no

Carried

FUNCTION OF VISION DEFINITION OF

Dr Ludlum Dr Bedell's resolution is as follows

RESOLVED, That the House of Delegates of the Medical Society of the State of New York re-affirms its approval of its former resolution that it considers the function of vision to be a compound act consisting of three factors central visual acuity, field of vision, and mu cle function" (See page 458)

We recommend its adoption

The Speaker All those in favor say aye, opposed, no

Carried

ENDORSEING MEDICAL PRACTICE ACTS

The Speaker Reference Committee on New Business C.

Dr Stetten Your Reference Committee on New Business C approves of the following resolution of the Medical Society of the County of Ulster and recommends its adoption

RESOLVED, That no medical measure affecting the welfare of the medical profession of New York State be proposed or sent to the State Legislature unless a referendum vote be taken by the separate county medical societies and approved by a majority of them"

The committee also approves the following resolution of the Medical Society of the County of Kings and recommends its adoption

RESOLVED, That the State Legislative Committee shall not endorse or approve in the name of the Medical Society of the State of New York any Medical Practice Act or amendments thereto without referendum to the component county medical societies following notifications to every member of the State Society by prompt publication of proposed legislation in the New York State Journal of Medicine or a bulletin thereof" I move its adoption, seconded

Dr Frank Jennings Kings I offer the following amendment "that said Legislation when approved to be subject to such changes or amendments during its progress through the Legislature as do not essentially change its provisions and which are approved by the Council and the Legislative Committee of the Medical Society of the State of New York."

I move its adoption

Seconded

Dr Rooney Albany In order to clarify this whole matter I move that the whole question be re-referred to the Committee, and that the committee report at the earliest opportunity, after which discussion of the amendment may be had before the house. Seconded and carried

The Speaker It is recommitted to the Reference Committee (See pages 458 and 466)

CENSURE OF THE COUNCIL

Dr Stetten Chairman Reference Committee on New Business C New York Your Reference Committee on New Business C disapproved of the resolution introduced by the Medical Society of the County of Kings regarding failure on the part of the Council to act in accordance with the direct order of the House of Delegates in reference to the Medical Practice Act

Your committee disapproves of this resolution for the following reasons

Although the Resolution offered by Dr Chalmers at Syracuse in 1925 providing for the appointment of a Committee of Seven to draft a Medical Practice Act which shall be the official bill of the Society was carried by the House of Delegates, according to Section 26 of the By-Laws of the Society which reads "The standing or special committees of the Society shall report to the Council and shall be subject to the jurisdiction of the Council at all times when the House of Delegates shall

not be in session," the Council were entirely within their constitutional rights in amending the Act, as submitted to them by the Committee, in order to make it acceptable to the Department of Education.

Your Committee therefore recommends the rejection of this resolution. Seconded

Dr Frank Jennings, Kings My recollection of the verbiage of that resolution is this that the product of that special committee to be appointed by the President shall be the bill of the Medical Society of the State of New York. Now, if the ordinary English means anything, "shall" is mandatory, and that only has arisen in the minds of some of us—as to how when a resolution of the House of Delegates is made mandatory and it is said that the bill or the product of a special committee shall be the bill of the Medical Society of the State of New York—how then can some other bill come along which is not the product of that committee. I think that is a question at issue, sir

The Speaker The Chair will rule on that, the product of the committee, that is the medical bill, did not exist before the House of Delegates adjourned. Therefore, the House in taking the control of that special committee from the Council is violating the by-laws.

The Speaker Will the Chairman of the Reference Committee read that resolution that has been submitted by Kings County?

Dr Stetten, Chairman Reference Committee on New Business C, New York Resolved, that the attention of the House of Delegates of the Medical Society of the State of New York be hereby directed to the failure on the part of the Council to act in accordance with a direct order of the House of Delegates at the last session with reference to the Medical Practice Act.

The Speaker That is a perfectly proper communication to bring before this House of Delegates, and we inform Dr Jennings that the Committee has reported adversely upon it, and their ground is very well taken, because it is contrary to the by-laws of this society.

Dr Rooney, Albany I rise to a point of information. Do I understand the Chair to rule that the House of Delegates exercises of itself and in itself no control over any act of the Council that may controvene or may be thought to controvene the purposes of this House of Delegates as evidenced by a resolution passed in an annual session?

The Speaker That is entirely too complicated for the Chair to answer.

Dr Rooney, Albany I think it is very plain. It merely means has the creator nothing to do with the creature?

The Speaker Dr Rooney that is not the question. The question is whether this House of Delegates can pass a resolution contrary to the constitution and by-laws. It cannot, and if it does it is null and void. That is the ruling of the Chair.

Dr Rooney, Albany May I ask another question? Wherein does the constitution settle the question of the responsibility of the Council to the House of Delegates of this Society in relation to a question such as has just been raised?

The Speaker Section 26 states "The Standing or Special Committees of the Society shall report to the Council and shall be subject to the jurisdiction of the Council at all times when the House of Delegates shall not be in session."

If there was a proposed bill reported to this House and this House acted upon that bill, then that would be binding upon the Council but the resolution creating the committee to draft a bill stated that the result of the deliberations of that committee shall supersede this section of the By-Laws. Therefore that portion of it is null and void as being contrary to the By-Laws.

Dr Rooney, Albany I rise to another point of information. The Speaker has quoted section 26. I would like to know whether that conforms with section 24, in the ruling which reads "The Council shall take such

action as is necessary to carry out the Constitution and By-Laws and to give full effect to any resolution or vote of the House of Delegates."

I, therefore, ask the Speaker how the reconciliation may be made and I think this is a very important thing.

The Speaker Between sections 24 and 26?

Dr Rooney, Albany Between sections 24 and 26. You have ruled that the Council has jurisdiction over the special and standing committees and that a resolution of this type is not in order because it is in effect asking to have attention directed to the failure of the Council, when section 24 states that the Council shall take such action as is necessary to give full effect to any vote or resolution of the House of Delegates.

The Speaker My ruling is that the reconciliation is perfect. Section 24 says the Council shall take such action as is necessary to carry out the constitution and by-laws and to give full effect to any resolution or vote of the House. If any resolution or vote of this House is contrary to any section in the Constitution and By-Laws such vote or order of the House is null and void and does not exist. Therefore it cannot be inconsistent with section 26 which is entirely a different proposition. The Speaker so rules.

Does the learned legal counsel agree with the ruling?

Mr Stryker, Legal Counsel I agree with the Speaker.

Dr Frank Jennings, Kings May I ask in view of this present ruling if the resolution at Syracuse last April or May was properly in order?

The Speaker What are you referring to, doctor?

Dr Frank Jennings, Kings The resolution which provided for the appointment of this committee as to the bill to be evolved by that committee to be the bill of the State Society.

The Speaker Why, yes. That is perfectly proper. That special committee under the order of the House of Delegates prepared a bill and under section 26 that bill which the committee prepared is under the control of the Council and the Council endorsed it.

The Speaker Are you ready for the question? Dr Stetten will read it.

Dr Stetten, Chairman Reference Committee on New Business C There is no amendment on this. The resolution is that the attention of the House of Delegates of the Medical Society of the State of New York be hereby directed to the failure on the part of the Council to act in accordance with a direct order of the House of Delegates at the last session in reference to the Medical Practice Act.

Your committee disapproved of this resolution and recommends its rejection for the reason stated.

The Speaker All those in favor of adopting the report of the committee say aye, opposed, no. Carried.

REPORT OF COMMITTEE ON MEDICAL ECONOMICS

Dr Bedell, Chairman Reference Committee on Medical Economics That part of the report referring to the nursing problem was by order of the Speaker referred to the Committee on Nursing Problems. (See page 459).

The portion referring to workmen's compensation was by similar direction referred to the Reference Committee on Legislation.

PERIODIC HEALTH EXAMINATION

Your Reference Committee approves the recommendations of said periodic examinations of apparently well person be given greater publicity. We further suggest that the enclosed physical examination record be printed in the Journal.

I move the adoption of that part of the report. Seconded and carried.

INDUSTRIAL MEDICINE IN SECTIONAL PROGRAMS

Dr Bedell, Albany We recommend that the committee on Scientific Work be requested to give as far as possible consideration to the subject of industrial medi-

time and surgery in preparing the programs of subsequent meetings.

I move its adoption. Seconded and carried.

Dr Bedell, Albany I move the adoption of the report of the report of the Committee as a whole. Seconded and carried.

TRI-STATE CONFERENCE.

The Committee, however, wishes to endorse the holding of conferences with the officers of the State Societies of New Jersey and Pennsylvania referred to in the report. (See page 422)

REPORT ON COUNCIL AND COUNCILLORS

Dr Hooly Chairman Reference Committee on Report of Council and Councillors Reference Committee on Report of Council and Councillors finds no recommendations therein requiring action by the Committee.

In the report of the Councillor of the 5th District Branch there is a suggestion that \$100.00 a year to supply means to care for District Branches is not sufficient.

The Committee feels that this suggestion is worthy of consideration. (See pages 454 and 470)

I move the adoption of the report. Seconded and carried.

REPORT OF SCIENTIFIC COMMITTEE.

Dr Humpstone Kings, Chairman of Reference Committee on Report of Committee on Scientific Work We especially commend the entire program of scientific work.

The special day's program on syphilis which has the whole-hearted support of the health activities of the entire State, and as an especial manifestation of the advantages of group studies, deserves the hearty support and attention of the whole Society.

The spirit of mutual cooperation of all departments of public health in New York State marks the splendid union of all resources in the advance of scientific work.

It was moved and seconded the report of the committee be adopted. Carried. (See page 436)

REORGANIZATION OF SOCIETY'S OFFICE.

Dr Courten, Queens, Chairman Reference Committee on Reports of Secretary and Treasurer

On page seven in paragraph 3 under the "Society's Office," there is a recommendation to organize three separate departments to cover respectively the secretarial, financial and editorial activities of the secretary's office, each having its own staff, correlated to the business manager. In view of the Society being about to move into its new quarters we would recommend that this suggestion be carried out under the direction of the secretary and subject to the approval of the Council and that funds for the refurnishing of the new office be provided therefor. (See page 423)

Dr Dougherty, Secretary In my report—it was really not a report but a survey of the financial situation of the Society—there were no recommendations. It was a suggestion, and, furthermore, the recommendation of the Committee regarding an appropriation could not be passed by the House of Delegates. Appropriation can only be made by the Council or the Executive Committee for the Council.

The Speaker Will you make those corrections?

Dr Courten, Queens I withdraw the portion that refers to the financing of the proposition and recommendations.

Dr Dougherty, New York Secretary This was a

survey more to lay before the Society the conditions and situations, with suggestions of what should be done by my successor in order to bring affairs into a more modern, business-like condition.

The Speaker Are you ready for the question? All those in favor of adopting the amended report of the Secretary, signify by saying aye, opposed, no. Carried.

COMMITTEE ON MEDICAL EDUCATION

Dr Podvin, New York Chairman Reference Committee on Report of Committee of Public Health and Medical Education

Your Reference Committee on "Report of Committee of Public Health and Medical Education" respectively submits the following report. (See page 427)

We approve and commend the excellent work done by Dr Gordon and his Committee. I moved its adoption submits the following report.

We approve the request of the Committee and recommend that they be authorized to accept funds from other agencies for further extension of their work.

We recommend the employment of a full time medical man to carry out the work of this Committee, and we further recommend the appropriation of a sum sufficient to cover the salary of this full time man and \$5,000 five thousand dollars, additional for the expenses of the Committee.

The sum of five thousand dollars is the amount of money that was provided for the use of this committee last year, so that the recommendation is really for the same amount for next year, with the addition of a whole-time man.

The Speaker The Chairman of the Committee will strike the appropriation out of his report.

ACCEPTING EDUCATIONAL FUNDS FROM OUTSIDE SOURCE.

Dr Podvin We approve the request of the Committee and recommend that they be authorized to accept funds from other agencies for further extension of their work.

Dr Kopetzky, New York I move it be referred to the Council for action. Seconded and carried.

Dr Halsey, New York I would like to move a reconsideration of the report which was referred to the Council. Seconded.

Dr Halsey Yes I should like to have that amended so that it recommends to the Council that they make it possible that the committee can have the charge of such funds. Seconded.

The Speaker It is moved and seconded and carried that the report referred to the Council be reconsidered. Now, the original motion before you. Dr Halsey, will you state your amendment?

Dr Halsey The amendment was that it be recommended to the Council that they make it possible for that committee to have outside funds put at their disposal.

The Speaker The proposed amendment is "that we approve the request of the committee and recommend that they be authorized to accept the funds from other agencies for the further extension of their work be amended "that the Council make it possible for that Committee to have outside funds put at their disposal."

Dr Rooney, Albany I think this is too important to settle a few moments before adjournment. I move you therefore, that the question be postponed to be the first order of business at the adjourned session this evening.

The Speaker Any discussion? If not all those in favor say aye, those opposed, no. Carried. Page 470.

Dr Frank Jennings Kings I move we adjourn until eight o'clock. Seconded and carried.

EVENING SESSION, MONDAY, MARCH 29, 1926

The meeting was called to order by the Speaker at 8 P M

ADDRESS BY HON BIRD S COLER

The Speaker We have with us tonight the Commissioner of Public Welfare of the City of New York and I will ask him to address you I introduce the Honorable Bird S Coler

Hon Bird S Coler Dr Harris, ladies and gentlemen I really did not expect this honor when I dropped up here this afternoon I thought I was going to meet some of the friends I met through the state and get our friendship a little bit more closely articulated, because if we do not hang together we are going to hang separately on some problems

I want to express the very great appreciation we have of the medical profession, and all that our department and all the city hospitals owe to it. It has never been served by a more loyal and better type of men and we believe in dealing with our medical boards and supporting them

There is going to be a lot of discussion in New York City over hospitals in the next few months and it is well always for us to have our feet on the ground We are going to have discussion as to whether the state ought to go into the practice of medicine entirely and whether the hospitals should be run for the rich as well as the poor, and the doctors to be paid standard salaries and socialized That will be one end of it I happen to be on the other phase of it The discussion will become rather acute and will be brought up in a very clever and most surreptitious way It is only a great organization like yours that can watch it I do not believe that you can socialize brains Brains have to have an opportunity to earn what they are worth, and the minute you attempt to force them it will put the profession where it will not be with a real earning capacity I am not going into that

I want to thank your organization for its report on the nursing situation I could talk to you two or three hours on this subject but I am not going to do so The time will come when we shall have to put a nurse who will nurse a patient who is sick in bed on a pedestal We are today worshipping types of nurses who do not take care of the sick, and we have got to make the nurse who really does take care of the sick as respectable as the nurse who does not We see this very clearly in our hospitals We are compelled to take care of sick people Even if anyone of you gentlemen should unfortunately happen to be struck by an automobile or something else in the street we would have to pick you up and take care of you, and we have got to have equipment ambulances, and nurses to take care of you So while we believe in nursing education we do not believe that the hospital should be made an appendage to a nursing school or any other kind of school We believe the care of the patient should come first

As the discussion to which I referred comes along we are going to stand by the medical profession

If we can get a bill or a rule passed whereby we can make a good first-class trained nurse and then give her an opportunity to go up higher or lower on the scale as we think best, a nurse who will take care of the sick the Department of New York City will set aside one of our great institutions the minute this is done and start in developing a good bedside nurse and put a medal on her for being a good bedside nurse

I thank you all, and if you want to visit any of our institutions during your stay they will be at your disposal I thank you again very much for this opportunity to say the few words that I have to you

The Speaker Is Podvin Chairman of Committee on Report of Committee on Public Health and Medical Education in the room?

Dr Rooney, Albany The committee is sitting in the ante-room

The Speaker Dr Rooney I will appoint you a committee of one to report to the Speaker when the Committee will be ready to report because that report is a special order of business

Dr Rooney, Albany The committee has asked me to say that they desire more time

The Speaker Will you move the reconsideration of that special order?

Dr Rooney, Albany I move that the motion that I made this afternoon in relation to making the report of this Committee the first order of business at the evening session be reconsidered Seconded and carried.

Dr Rooney, Albany I move that the House proceed to the regular order Seconded and carried.

PRESIDENT'S ADDRESS

Dr Soudern New York Chairman Reference Committee on President's address Page 420

"Your committee reads with satisfaction the President's reference to the growing activities of the Society and would endorse the recommendation that a firm of efficiency and accounting experts be retained to study the needs and equip the Society with a complete modern business system"

Dr Dougherty New York, Secretary I move that be referred to the Council. Seconded and carried.

THE JOURNAL.

Dr Soudern "The commendation voiced in the report relative to the Journal is considered fully deserved and has our endorsement Dr Wightman is to be congratulated on the success achieved in so brief a period

COUNSEL.

As the Chairman of your Reference Committee had much to do with the original appointment of George W Whiteside as Counsel of the Society he would stress his regret together with a regret of the other members of the Committee on learning of his resignation Your Committee begs leave to recommend to the Council of the Society or probably to the House of Delegates an official expression of appreciation, and engrossed copy of which shall be sent to Mr Whiteside." Seconded

The Speaker You have heard that recommendation.

Dr Dougherty, New York, Secretary The Council has already taken suitable action in regard to Mr Whiteside's resignation They were to send him a copy of it

The Speaker Engrossed?

Dr Dougherty, New York, Secretary No

Dr Bedell, Albany I move you, sir, that it come from the House of Delegates, a much larger and more representative body

The Speaker It is moved and seconded that that portion of the report that relates to the House of Delegates sending this engrossed resolution to Mr Whiteside be added to the report. All those in favor say aye, opposed, no Carried

The Speaker All those in favor of the recommendation of the Committee as amended say aye, opposed, no Carried

Next recommendation

Dr Soudern "There is a sense of satisfaction to your Committee in the knowledge that Mr Whiteside is to be succeeded by Mr Lloyd Stryker who has at his command the original office staff

The President's reference to the question of legal defense and insurance is one which deserves the earnest consideration not only of every member of this House of Delegates but of every member of the State Society. Malpractice suits are on the increase, that defense for uninsured members is a burden of the Society of no small moment, and your Committee recommends that it shall be the sense of this House of Delegates to urge upon every member in practice, the carrying of a suitable policy for his own protection as well as to save the Society the expense of defending him in case of need The moral support of the Society is his in any event and its members serve him as experts without pay in any event—but this is in the final analysis all that he shall ask" Seconded

The Speaker You have heard the recommendation All those in favor say aye, opposed no Carried

Dr Soudern "The commendation on the work of the various committees is an evidence of a wise selection of

men for the purpose. The details of the work done by those committees will be covered by the Reference Committee directly assigned

Your committee begs for your endorsement of the Resolution of the Executive Committee of January 14, 1926, when the President appointed a committee to aid in the carrying out of a preventive medicine campaign, to, among other things, make toxin-antitoxin available to every child in the State of New York, and mind you, to place the responsibility for its distribution upon the medical profession of the State and not in the hands of a favored few"

I recommend its adoption. Seconded and carried
Dr Sondern "The views of the President relative to legislation should have your endorsement, the details are however in the hands of the Reference Committee especially concerned.

TRI-STATE CONFERENCE.

The Tri-State Conference report by the President also deserves your support in the opinion of your Committee" Seconded and carried. (See page 422)

DEATHS OF DRS SUITER AND WENDE.

Dr Sondern "When the House of Delegates has expressed its sorrow in the sad loss of Dr A Walter Suiter and Dr Grover W Wendt, it is the sense of your Committee that suitably inscribed resolutions shall be adopted which shall go to the bereaved families of the former presidents of the Society"

APPRECIATION OF PRESIDENT VAN ETEN

Dr Sondern "In closing your Committee wishes to express to the House of Delegates its appreciation of the sterling qualities and singular fitness of the retiring president, Dr N B Van Etten"

Dr Sondern I move the adoption of the amended report as a whole. Seconded and carried

MALPRACTICE DEFENSE.

Dr Townsend, Chairman Reference Committee on Report of Legal Counsel We endorse the portion in the report which pays tribute to the splendid qualities of Mr George W Whiteside and congratulate the Society on obtaining a Counsel already seasoned and experienced in the legal problems peculiar to our profession to finish Mr Whiteside's unexpired term

Analysis of Table I shows that one-half as many suits are disposed of as instituted in the year, thus increasing to 355 the suits pending on February 1, 1926. Of the 66 suits disposed, in only five were judgments given against a physician. These figures bespeak attention to detail and thorough preparation of the cases prior to trial

The counsel's caution of increasingly larger awards by juries prompts your committee to again remind our members that the society defends but does not indemnify

Your committee expresses its gratification on the increased percentage of members insured and expresses the hope that the percentage will materially increase each year We furthermore hope that each delegate will use his influence to induce those uninsured to join in our group plan of insurance.

Your committee feels that the thanks of the Society should be tendered to counsel for his editorials and the digest of cases tried, woo, and lost. We hope that these reports will continue to appear in the columns of the State Journal

Your committee commends the counsel's activities in correspondence, attending meetings, and his liberal expenditure of time and energy for the Society's benefit.

Your committee feels that the Society's thanks are due Mr Oliver for his professional assistance and to Mr Wanvig for his co-operation and assistance in handling the cases arising under the group plan of insurance"

I move the adoption of the report

Seconded and carried

REPORT OF COMMITTEE ON LEGISLATION.

Dr John Jennings, Kings, Chairman Reference Committee on Report of Committee on Legislation The Reference Committee on the Report of the Committee on Legislation recommends the acceptance of the Report and submits the following comments Page 431

Your Committee endorses the Legislative Committee's interest in securing the Cooperation of "lay organizations" having the interest in health matters and hopes that this cooperation may thrive and flourish until the ideals of medicine and the aspiration of welfare completely coincide. They belong together It is our belief however that no opportunity should be lost, not even this one, to express the fact that the Doctors dread of socialism is based on no selfish motive but on the well grounded assurance that in the perpetuation and perfection of the personal relation of physician and patient lies the best hope of public as well as individual health.

Your Committee notes with approval the passage of the Trustees bill, now a law, and would question the nature and objects of the law providing for the establishment and conduct of Nurse Registries.

This is not the time to discuss the attempt of the House of Delegates of 1925 to construct a medical practice act Such an attempt was made however and the report of the Committee appointed to prepare such an act is in your hand.

The Report of the Committee on Legislation states that "after the committee's amendment of the Medical Practice Act was accepted by the Council and the State Department of Education we were encouraged through our contacts in the Legislature to believe that our efforts this year would meet with success"

It seems only fair to the Committee directed to draw up the Act and to the bill as reported to you by that Committee to draw attention to the fact that the amendments made by the Legislative Committee materially alter and in fact change the essential intent of the original bill.

The present conditions in the Legislature, your Committee is informed, render the passage of the so-called Miller Bill most improbable, so that a discussion of its provisions may seem unnecessary at this time. However, it embodies an expression of opinion and outlines a policy of the State Society which your Committee hesitates to endorse.

It may be conceded that practice under the Workmen's Compensation Act is not at present satisfactory but your Committee does not agree that the Medical Society of the State of New York should attempt to engage in the problem so intimately as is suggested.

The present system of Compensation law which denies to the injured workman his right to choose his own physician from those endorsed as competent and licensed to practice by the State of New York cannot be acceptable to a free man white or black.

The problem has not been solved, it calls for re-statement and re-solution

The suggestion of the Committee that one or two meetings of the Chairman of the Legislative Committees of the County Societies be held during the legislative session is another contribution to the attempt to secure unanimity or to limit dissent to the Society's legislative activities

So long as the Legislation program of the Society is limited to the obstruction of unsafe or unwise legislation and so long as no fixed policy of constructive reform is desired by the Society such a course seems fair enough

The Society needs, however, a mechanism for the formulation as well as the execution of its legislative program which we are persuaded should be comprehensive construction fully cognizant of existing evils and aggressively interested in their correction.

The Legislative policy of the Medical Society of the State of New York should express its own interest."

I move its adoption. Seconded.

The Speaker Are you ready for the question? The

EVENING SESSION, MONDAY, MARCH 29, 1926

The meeting was called to order by the Speaker at 8 P M

ADDRESS BY HON BIRD S COLER

The Speaker We have with us tonight the Commissioner of Public Welfare of the City of New York and I will ask him to address you I introduce the Honorable Bird S Coler

Hon Bird S Coler Dr Harris, ladies and gentlemen I really did not expect this honor when I dropped up here this afternoon I thought I was going to meet some of the friends I met through the state and get our friendship a little bit more closely articulated, because if we do not hang together we are going to hang separately on some problems

I want to express the very great appreciation we have of the medical profession, and all that our department and all the city hospitals owe to it It has never been served by a more loyal and better type of men and we believe in dealing with our medical boards and supporting them

There is going to be a lot of discussion in New York City over hospitals in the next few months and it is well always for us to have our feet on the ground We are going to have discussion as to whether the state ought to go into the practice of medicine entirely and whether the hospitals should be run for the rich as well as the poor and the doctors to be paid standard salaries and socialized That will be one end of it I happen to be on the other phase of it The discussion will become rather acute and will be brought up in a very clever and most surreptitious way It is only a great organization like yours that can watch it I do not believe that you can socialize brains Brains have to have an opportunity to earn what they are worth, and the minute you attempt to force them it will put the profession where it will not be with a real earning capacity I am not going into that

I want to thank your organization for its report on the nursing situation I could talk to you two or three hours on this subject but I am not going to do so The time will come when we shall have to put a nurse who will nurse a patient who is sick in bed on a pedestal We are today worshipping types of nurses who do not take care of the sick and we have got to make the nurse who really does take care of the sick as respectable as the nurse who does not We see this very clearly in our hospitals We are compelled to take care of sick people Even if anyone of you gentlemen should unfortunately happen to be struck by an automobile or something else in the street we would have to pick you up and take care of you, and we have got to have equipment ambulances, and nurses to take care of you So while we believe in nursing education we do not believe that the hospital should be made an appendage to a nursing school or any other kind of school We believe the care of the patient should come first

As the discussion to which I referred comes along we are going to stand by the medical profession

If we can get a bill or a rule passed whereby we can make a good, first-class trained nurse and then give her an opportunity to go up higher or lower on the scale as we think best, a nurse who will take care of the sick, the Department of New York City will set aside one of our great institutions the minute this is done and start in developing a good bedside nurse and put a medal on her for being a good bedside nurse

I thank you all, and if you want to visit any of our institutions during your stay they will be at your disposal I thank you again very much for this opportunity to say the few words that I have to you

The Speaker Is Podvin Chairman of Committee on Report of Committee on Public Health and Medical Education in the room?

Dr Rooney, Albany The committee is sitting in the ante-room

The Speaker Dr Rooney I will appoint you a committee of one to report to the Speaker when the Committee will be ready to report, because that report is a special order of business

Dr Rooney, Albany The committee has asked me to say that they desire more time.

The Speaker Will you move the reconsideration of that special order?

Dr Rooney, Albany I move that the motion that I made this afternoon in relation to making the report of this Committee the first order of business at the evening session be reconsidered Seconded and carried

Dr Rooney, Albany I move that the House proceed to the regular order Seconded and carried.

PRESIDENT'S ADDRESS

Dr Sandern New York Chairman Reference Committee on President's address Page 420

"Your committee reads with satisfaction the President's reference to the growing activities of the Society and would endorse the recommendation that a firm of efficiency and accounting experts be retained to study the needs and equip the Society with a complete modern business system"

Dr Dougherty, New York, Secretary I move that be referred to the Council Seconded and carried

THE JOURNAL

Dr Sandern "The commendation voiced in the report relative to the Journal is considered fully deserved and has our endorsement Dr Wightman is to be congratulated on the success achieved in so brief a period.

COUNSEL

As the Chairman of your Reference Committee had much to do with the original appointment of George W Whiteside as Counsel of the Society he would stress his regret together with a regret of the other members of the Committee on learning of his resignation Your Committee begs leave to recommend to the Council of the Society or probably to the House of Delegates an official expression of appreciation, and engrossed copy of which shall be sent to Mr Whiteside." Seconded

The Speaker You have heard that recommendation. *Dr Dougherty, New York, Secretary* The Council has already taken suitable action in regard to Mr Whiteside's resignation They were to send him a copy of it.

The Speaker Engrossed?

Dr Daugherty New York, Secretary No

Dr Bedell, Albany I move you, sir, that it come from the House of Delegates, a much larger and more representative body

The Speaker It is moved and seconded that that portion of the report that relates to the House of Delegates sending this engrossed resolution to Mr Whiteside be added to the report. All those in favor say aye, opposed, no Carried

The Speaker All those in favor of the recommendation of the Committee as amended say aye, opposed, no Carried

Next recommendation

Dr Sandern "There is a sense of satisfaction to your Committee in the knowledge that Mr Whiteside is to be succeeded by Mr Lloyd Stryker who has at his command the original office staff"

The President's reference to the question of legal defense and insurance is one which deserves the earnest consideration not only of every member of this House of Delegates but of every member of the State Society. Malpractice suits are on the increase, that defense for uninsured members is a burden of the Society of no small moment, and your Committee recommends that it shall be the sense of this House of Delegates to urge upon every member in practice, the carrying of a suitable policy for his own protection as well as to save the Society the expense of defending him in case of need. The moral support of the Society is his in any event and its members serve him as experts without pay in any event—but this is in the final analysis all that he shall ask" Seconded

The Speaker You have heard the recommendation All those in favor say aye, opposed, no Carried

Dr Sandern "The commendation on the work of the various committees is an evidence of a wise selection of

The Speaker Then you read further down in Article VIII "Nor shall any indebtedness be incurred by any officer, committee or member of committee of the Society as a charge against the Society until the same shall have been approved by the "Board of Trustees," instead of "Council" Seconded and carried unanimously

Dr Sloan Under Section 6 of the By-Laws, after "(c)" add "Trustees"

The Speaker Section 6 will then read "The House of Delegates shall be composed of (a) delegates elected by the component County Medical Societies, (b) officers of the Society", and adding "(c) Trustees," and, of course, the other lettering will be arranged according

Dr Phillips, New York Does the resolution say the members of the Board of Trustees are members of this house with vote?

The Speaker If you look on page two of your folder you will see under By-Laws "Section 6, line 4, after the semi-colon (;), insert the word "(c) the trustees" Now, that would make Section 6 read "The House of Delegates shall be composed of (a) Delegates elected by the component County Medical Societies, (b) officers of the Society, (c) trustees," and, therefore, that amendment makes them members of the House of Delegates with vote. If you wish to modify that so they will be members of the House without vote, you can make that amendment

Dr Bedell, Albany I move that amendment, that the trustees be members of the House of Delegates without vote.

The Speaker The proposed amendment by Dr Bedell is that the trustees be members of the House of Delegates without vote Motion seconded

Dr Ludlum, Kings An amendment to the amendment would simplify the expression Bracket (d) in the old By-Laws says "the past presidents of the Society shall be life members with voice but without vote." I wonder if this could not be put after that —

The Speaker It could be done very nicely Will you do it?

Dr Ludlum Kings I move that amendment

The Speaker Dr Bedell will you accept it?

Dr Bedell, Albany Yes

The Speaker Are you ready for the amendment as proposed by Dr Ludlum and accepted by Dr Bedell? All in favor please say "aye" opposed "no" Carried

Dr Sloan Oneida Section 12, after line 12, insert a new line 13 to read "8, Report of the Trustees" I move its adoption.

The Speaker The order of business is changed to put in Trustees All those in favor say aye, opposed, no Carried unanimously

Dr Slaan, Oneida Section 13, after the word "officers" add the word "trustees," and after the word "officers" in the third line before the last add "trustees", so that the section will read "The officers, trustees, and Chairman of committees of the Society" and ending "no member of the Society shall be eligible for any office or entitled to vote for any officer, trustee, chairman of standing committees or delegates who is in arrears for county dues and state Society per capita assessment."

I move its adoption Seconded

The Speaker You are voting on Section 13 "The officers—" and you insert the word "trustees" so it will read "the officers, trustees and chairman of committees of the Society, to be elected by the House of Delegates shall be elected at an adjourned session of the annual meeting of the House of Delegates, which adjourned session shall be held at a convenient hour on the first day of the annual meeting of the Society No member of the Society shall be eligible for any office or entitled to vote for any officer or trustee, chairman of standing committees or delegates who is in arrears for county dues and State Society per capita assessment."

There are two places in that section in which the word 'trustees' is added Are you ready for the question?

All those in favor of that say aye, opposed, no Carried unanimously

Dr Slaan, Oneida Section 14, line 3, before the word "censors" insert the word "trustees" I move the adoption of that amendment. Seconded.

The Speaker You are voting on the amendment. All those in favor say aye, opposed, no Carried unanimously

Dr Sloan In Section 23 strike out the words "Shall have charge of all properties and the financial affairs of the Society and." Which means that the duties are transferred from the Council to the Board of Trustees Seconded and carried.

Dr Sloan, Oneida Section 25 of the By-Laws is deleted and I so move.

The Speaker It reads "All moneys of the Society received by the Council or any member or agent thereof shall be paid to the Treasurer of the Society The Council shall approve the bond of the Treasurer as to amount, form and surety, it shall employ a public accountant to audit the accounts of the Treasurer and Secretary and other agents of the Society and present a statement of the same in its annual report to the House of Delegates The Council shall make a report to the House of Delegates of its transactions for the year and of the amount of money belonging to the Society under its control."

Therefore, it is moved by the Chairman of the Committee to strike that out as he will present a new section to replace it in which the "Board of Trustees" in stead of the "Council" having charge of the funds of the Society Seconded

Are you ready for that question? All those in favor say aye, opposed, no Carried unanimously It is stricken out.

This is the substitute for that Section 25

Dr Slaan, Oneida Section 33 At the first meeting of the Board of Trustees following the annual meeting of the House of Delegates, it shall organize and elect a chairman The Board of Trustees shall hold regular meetings at times and places that shall be fixed by the Chairman of the Board of Trustees and any three members of the Board of Trustees may require the Chairman thereof to call a meeting at the office of the State Society for such time as shall be designated by them in writing, of which the members of the Board shall have at least seven days' notice. I move its adoption

The Speaker All those in favor of Section 33 as read by the chairman say aye, all those opposed, no Carried unanimously

Dr Slaan, Oneida Section 34 The Board of Trustees shall have charge of all property including trust funds and shall manage the financial affairs of the Society and shall invest the surplus from time to time. The budget prepared by the Executive Committee shall be submitted to the Board for its approval and all resolutions or recommendations of the House of Delegates, Council or Executive Committee pertaining to appropriation of money must be approved by the Board of Trustees before the same shall become effective.

I move its adoption. Seconded.

The Speaker You notice the word "appropriation" is used so that you may make appropriations subject to the approval of the Board of Trustees before they become effective.

Are you ready for the question?

Dr Vander Veer, Albany Will you read that again? I think that takes away from the House of Delegates the power to expend money, does it not?

The Speaker The House of Delegates has no power to expend money now

Dr Vander Veer, Albany All right.

The Speaker It merely takes it away from the Council and puts it in the Board of Trustees so that the Council will have no right to expend money

Are you ready for that question? All those in favor say aye, opposed no Carried unanimously

Dr Sloan Oneida Section 35 All moneys of the Society received by the Board of Trustees, Council or

question is on the adoption of the report of the chairman of the Reference Committee on Legislation. All those in favor say aye, opposed, no. Seconded and carried.

ENDORSEMENT OF MEDICAL PRACTICE ACTS (Continued from page 461)

Dr Stetten, Chairman Reference Committee on New Business C "Your Reference Committee on New Business C disapproves of the Resolution proposed by the Medical Society of the County of Kings, which reads:

RESOLVED, That the State Legislative Committee shall not endorse or approve in the name of the Medical Society of the State of New York any medical practice act or amendment thereto, without referendum to the component County Medical Societies following notification to every member of the State Society by prompt publication of proposed legislation in the "New York State Journal of Medicine" or a bulletin thereof.

Your Committee disapproves of this resolution because of its wording but approves of its general basic principles and therefore submits a substitute resolution which is as follows:

RESOLVED, That before approval or endorsement in the name of the Medical Society of the State of New York by the Council or Legislative Committee of proposed legislation affecting the Public Health Law in relation to the practice of medicine, such proposed legislation shall be submitted for referendum to the component medical societies following publication thereof in the New York State Journal of Medicine and that when said legislation be approved by a two-thirds vote of the County Societies voting it shall be subject only to such changes as are approved by the Council and Legislative Committee.

Your committee moves the adoption of this resolution." Seconded.

The Speaker Are you ready for the question? All those in favor of the adoption of the report of the Committee as read will signify by saying aye, and those who are opposed will say "no." The motion is lost.

Dr Dougherty, Secretary, New York I ask for a division.

The Speaker The Secretary will read the report of the committee.

Dr Dougherty, Secretary, New York "Your Reference Committee on New Business C disapproves of the Resolution proposed by the Medical Society of the County of Kings which reads:

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Your Committee moves the adoption of this Resolution."

The Speaker That substitute resolution has been put to a voice vote and the Speaker declared that it was lost. Now, a division has been called for and any member has

a right to demand it without being seconded. Therefore, I will ask those who are in favor of that resolution to rise. The Secretary announced twenty-five in favor of the adoption of the resolution and seventy-seven against it. *The Speaker* The Speaker declares the resolution lost.

All those in favor of the original resolution say aye, opposed, no. Lost.

BOARD OF TRUSTEES

Dr Sloan, Oneida, Chairman of the Reference Committee on Speaker's address, Constitution and By-Laws recommends the adoption of the following to be known as Article 6 of the Constitution:

ARTICLE VI

"The Board of Trustees shall consist of five members elected as such Trustees, and the President, the Speaker and the Secretary shall be members of the Board of Trustees with voice but without vote.

"In 1926 one Trustee shall be elected for five years, one for four years, one for three years, one for two years and one for one year and thereafter, one trustee shall be elected annually for a period of five years.

I move the adoption of that section of the report. Seconded. Carried unanimously.

Dr Sloan, Oneida, Your Committee recommends a modification of Article 8 of the Constitution striking out the word "appropriated" and supplying the word "expended," so as to read "No funds of the Society shall be expended for any purpose except by authority of a resolution of the Board of Trustees, nor shall any indebtedness be incurred by any officer, committees or members of committees of the Society as a charge against the Society until the same shall have been approved by the Board of Trustees."

The Speaker This article strikes out the Council having authority over the funds of the Society and transfers it to the Board of Trustees and changes the word appropriated to expended. Seconded.

The Speaker Are you ready for the question?

Dr Rooney, Albany As I heard the Chairman of the Reference Committee, he made the statement concerning striking out the word "appropriated" and insert the word "expended." I do not see that exact word in here.

The Speaker Simply that the Trustees who are expending the money are substituted in place of the Council and the word appropriated was changed to expended. That would give the House the privilege to recommend appropriations subject to the approval of the Board of Trustees.

Dr Rooney, Albany I would like to have the opinion of the Counsel of the State Society. Is it possible without notice of this specific amendment to amend the By-Laws in this way, by changing a word without previous notice?

The Speaker It is merely to conform to the changes made in the Constitution and By-Laws which provide for the Board of Trustees.

Mr Oliver, Attorney Notice having been given at the meeting in 1925 of a change in the section, in my opinion that can be amended by substituting the word "expended" for the word "appropriated" by an amendment from the floor.

Dr Rooney, Albany That is if notice is given that an article will be amended in a certain specific way, in a notice as provided in the by-laws, thereafter that proposed specific amendment opens up the whole article to amendment without notice from the floor?

Mr Oliver That is true, and the exact language of the notice need not be adopted but other language may be adopted after discussion from the floor.

The Speaker That no funds of the Society shall be expended for any purpose except by the authority of a resolution of the Board of Trustees, is the question. Seconded and carried unanimously.

The Speaker Then you read further down in Article VIII "Nor shall any indebtedness be incurred by any officer, committee or member of committee of the Society as a charge against the Society until the same shall have been approved by the "Board of Trustees," instead of "Council" Seconded and carried unanimously.

Dr Sloan Under Section 6 of the By-Laws, after "(c)" add "Trustees"

The Speaker Section 6 will then read "The House of Delegates shall be composed of (a) delegates elected by the component County Medical Societies, (b) officers of the Society", and adding "(c) Trustees," and, of course, the other lettering will be arranged according

Dr Phillips, New York Does the resolution say the members of the Board of Trustees are members of this house with vote?

The Speaker If you look on page two of your folder you will see under By-Laws "Section 6, line 4, after the semi-colon (;) insert the word "(c) the trustees" Now, that would make Section 6 read "The House of Delegates shall be composed of (a) Delegates elected by the component County Medical Societies, (b) officers of the Society, (c) trustees," and, therefore, that amendment makes them members of the House of Delegates with vote. If you wish to modify that so they will be members of the House without vote, you can make that amendment

Dr Bedell, Albany I move that amendment, that the trustees be members of the House of Delegates without vote.

The Speaker The proposed amendment by Dr Bedell is that the trustees be members of the House of Delegates without vote Motion seconded

Dr Ludlum, Kings An amendment to the amendment would simplify the expression Bracket (d) in the old By-Laws says "the past presidents of the Society shall be life members with voice but without vote." I wonder if this could not be put after that —

The Speaker It could be done very nicely Will you do it?

Dr Ludlum, Kings I move that amendment

The Speaker Dr Bedell will you accept it?

Dr Bedell, Albany Yes

The Speaker Are you ready for the amendment as proposed by Dr Ludlum and accepted by Dr Bedell? All in favor please say "aye," opposed, "no" Carried

Dr Sloan Oneida Section 12, after line 12, insert a new line 13 to read "8, Report of the Trustees" I move its adoption

The Speaker The order of business is changed to put in Trustees All those in favor say aye, opposed, no Carried unanimously

Dr Sloan, Oneida Section 13, after the word "officers" add the word "trustees," and after the word "officers" in the third line before the last add "trustees", so that the section will read "The officers trustees and Chairman of committees of the Society" and ending "no member of the Society shall be eligible for any office or entitled to vote for any officer, trustee, chairman of standing committees or delegates who is in arrears for county dues and state Society per capita assessment."

I move its adoption Seconded

The Speaker You are voting on Section 13 "The officers—" and you insert the word "trustees" so it will read "the officers, trustees and chairman of committees of the Society, to be elected by the House of Delegates shall be elected at an adjourned session of the annual meeting of the House of Delegates which adjourned session shall be held at a convenient hour on the first day of the annual meeting of the Society No member of the Society shall be eligible for any office or entitled to vote for any officer or trustee, chairman of standing committees or delegates, who is in arrears for county dues and State Society per capita assessment"

There are two places in that section in which the word "trustees" is added Are you ready for the question?

All those in favor of that say aye, opposed, no Carried unanimously

Dr Sloan, Oneida Section 14, line 3, before the word "censors" insert the word "trustees." I move the adoption of that amendment. Seconded.

The Speaker You are voting on the amendment. All those in favor say aye, opposed, no Carried unanimously

Dr Sloan In Section 23 strike out the words "Shall have charge of all properties and the financial affairs of the Society and." Which means that the duties are transferred from the Council to the Board of Trustees Seconded and carried

Dr Sloan, Oneida Section 25 of the By-Laws is deleted and I so move.

The Speaker It reads "All moneys of the Society received by the Council or any member or agent thereof shall be paid to the Treasurer of the Society The Council shall approve the bond of the Treasurer as to amount, form and surety, it shall employ a public accountant to audit the accounts of the Treasurer and Secretary and other agents of the Society and present a statement of the same in its annual report to the House of Delegates The Council shall make a report to the House of Delegates of its transactions for the year and of the amount of money belonging to the Society under its control."

Therefore, it is moved by the Chairman of the Committee to strike that out as he will present a new section to replace it in which the "Board of Trustees" in stead of the "Council" having charge of the funds of the Society Seconded.

Are you ready for that question? All those in favor say aye, opposed, no Carried unanimously It is stricken out.

This is the substitute for that Section 25

Dr Sloan, Oneida Section 33 At the first meeting of the Board of Trustees following the annual meeting of the House of Delegates, it shall organize and elect a chairman The Board of Trustees shall hold regular meetings at times and places that shall be fixed by the Chairman of the Board of Trustees and any three members of the Board of Trustees may require the Chairman thereof to call a meeting at the office of the State Society for such time as shall be designated by them in writing, of which the members of the Board shall have at least seven days' notice. I move its adoption.

The Speaker All those in favor of Section 33 as read by the chairman say aye, all those opposed, no Carried unanimously

Dr Sloan, Oneida Section 34 The Board of Trustees shall have charge of all property including trust funds and shall manage the financial affairs of the Society and shall invest the surplus from time to time. The budget prepared by the Executive Committee shall be submitted to the Board for its approval and all resolutions or recommendations of the House of Delegates, Council or Executive Committee pertaining to appropriation of money must be approved by the Board of Trustees before the same shall become effective.

I move its adoption. Seconded.

The Speaker You notice the word "appropriation" is used so that you may make appropriations subject to the approval of the Board of Trustees before they become effective.

Are you ready for the question?

Dr Vander Veer Albany Will you read that again? I think that takes away from the House of Delegates the power to expend money, does it not?

The Speaker The House of Delegates has no power to expend money now

Dr Vander Veer, Albany All right.

The Speaker It merely takes it away from the Council and puts it in the Board of Trustees so that the Council will have no right to expend money

Are you ready for that question? All those in favor say aye opposed, no Carried unanimously

Dr Sloan Oneida Section 35 All moneys of the Society received by the Board of Trustees, Council or

any member or agent thereof shall be paid to the Treasurer of the Society. The Board of Trustees shall approve the bond of the Treasurer as to amount, form and surety, it shall employ a public accountant to audit the accounts of the Treasurer and Secretary and other agents of the Society and present a statement of the same in its annual report to the House of Delegates. The Chairman of the Board of Trustees shall make a report to the House of Delegates of its transactions for the year and of the amount of money belonging to the Society under its control."

I move the adoption of Section 35. Seconded.

The Speaker Are you ready for the question? All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida Section 36 "Three members of the Board of Trustees shall constitute a quorum."

I move the adoption of that. Seconded.

The Speaker All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida Section 37 The following shall be the order of business at meetings of the Board of Trustees

One Calling the meeting to order

Two Roll call by the Secretary

Three Reading of minutes

Four Communications

Five Reports

Six Unfinished business

Seven New Business

I move its adoption. Seconded.

The Speaker All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida In Section 37 after the word "council" insert "Board of Trustees." I move its adoption. Seconded.

The Speaker All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida The fourth line from the bottom Section 37, for the word "council" substitute "Board of Trustees." Seconded.

The Speaker All those in favor of that modification say aye, opposed, no. Carried unanimously.

Dr Sloan Section 23 Strike out the words shall have charge of all properties and the financial affairs of the Society and which means that the duties are transferred from the Council to the Board of Trustees. Seconded. Carried.

Dr Sloan Section 39 For "Council or Executive Committee" substitute "Board of Trustees," fourth line. Seconded.

The Speaker All those in favor of that say aye, opposed, no. Carried.

Dr Sloan Section 39 Seventh line. Change the word "president" to "Chairman of the Board of Trustees." Seconded.

The Speaker All those in favor of that change say aye, opposed, no. Carried unanimously.

Seventh line from the bottom, change the word Council to Board of Trustees. Seconded and carried.

The Treasurer shall be a trustee of the Merritt H. Cash Fund, the Lucien Howe Fund, and such other special funds as may be established" is stricken out because all those funds are provided for in the custody of the Board of Trustees instead. Seconded.

The Speaker All those in favor of that say aye, opposed, no. Carried unanimously.

"The treasurer shall make an annual report to the House of Delegates and then in addition to the Board of Trustees whenever requested"—that is added. Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

The Speaker "The salary of the treasurer," it says, "shall be fixed by the Council." The word "Council" is to be stricken out and "The Board of Trustees" inserted. Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida Section 42. The second sentence strike out "the members of the Council" and insert "the members of the Board of Trustees." Seconded.

The Speaker This provides that trustees be allowed railroad fares for attending the meetings. All those in favor say aye, opposed, no. Carried unanimously.

Section 42 provides that proper vouchers must be filed with the secretary and approved by the Executive Committee. "The Executive Committee" is stricken out and "The Board of Trustees" inserted. Seconded.

All those in favor say aye, opposed, no. Carried.

Section 42 states "the vouchers of such expense shall be approved by the Executive Committee." Strike out "Executive Committee" and insert "trustees." Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

Section 42 reads "provided a proper statement of such expense shall have been presented to the secretary and approved by the Executive Committee." Strike out "Executive Committee" and insert "trustees." Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

Section 42 provides "This time may be extended for any cause by the Council or Executive Committee." "Council or Executive Committee" is stricken out and "Board of Trustees" inserted. Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida Section 66. After the "House of Delegates, Council" insert "Board of Trustees." Insert "Board of Trustees" after the word "Council." Seconded.

The Speaker These are the notices for the annual meeting. All those in favor of that say aye, opposed, no. Carried unanimously.

Instead of ten days' notice in order to have these all covered by the same blanket article, the House of Delegates and the Council and the Board of Trustees are all to be allowed seven days' notice instead of ten. Seconded.

All those in favor of that say aye, opposed, no. Carried unanimously.

BOARD OF CENSORS

The Speaker Article VI reads "The President, the Secretary, and the eight district councillors shall be known as the Board of Censors. The House shall elect them annually." It is moved to strike out the words "The House of Delegates shall elect them annually." Seconded.

The Speaker All those in favor of the adoption of that amendment say aye, those opposed, no. Carried unanimously.

Section 17 says the censors shall be nominated as provided in Article 6 of the Constitution and elected by a majority vote without debate. That should be stricken out. Seconded.

Those in favor of striking that out (Section 17) say aye, opposed, no. Carried unanimously.

The Speaker Strike out censors, third line, Section 14. Carried unanimously.

DELEGATE TAKES OFFICE

The Speaker Dr Wightman introduced last year an amendment to the by-laws which is reported in the proceedings of the House of Delegates, that the term of a delegate of a county Medical Society shall begin at the first annual meeting of the House of Delegates subsequent to his election. Dr Wightman's amendment shall be added at the end of section 19, as follows "The term of a delegate elected by a County Medical Society shall begin at the first annual meeting of the House of Delegates subsequent to his election." Now, Dr Wightman was appointed a committee of one to think over this amendment and present it or a substitute. He has

thought over it a whole year and he has presented the same one he presented last year. So I ask your adoption of it. Seconded.

The Speaker All those in favor of the amendment of Dr Wightman will signify by saying aye, those opposed, no. Carried.

FILLING VACANCIES

Dr Sloan The next is Section 24 "When the House of Delegates is not in session, the Council shall have power to fill any vacancy which may occur in any elective office." Now, since we have trustees who are holding office for five years, this recommendation has been made by the Committee.

The Speaker The section as amended will read "The Council shall have power to fill any vacancy which may occur in any elective office not otherwise provided for until the next annual meeting of the House of Delegates." Seconded.

Those in favor say aye, opposed, no. Carried unanimously.

PRESIDENT ELECT

All those in favor that the president-elect be added to the officers say aye, opposed, no. Carried unanimously.

ASSISTANT SECRETARY AND TREASURER

Dr Sloan We have an amendment to Article 4 of the constitution by striking out the word "except" and in place add the word "including" the assistant secretary and the assistant treasurer. The object of that is to add the assistant secretary and the assistant treasurer to the Council. Seconded.

The Speaker All those in favor say aye, opposed, no. Carried unanimously. (For further amendments see page)

Dr Bedell, Albany I move we adjourn to meet at 9 A M tomorrow. Seconded and carried.

Thereupon the meeting was adjourned to resume at 9 o'clock A. M., March 30, 1926.

ADJOURNED MEETING OF THE HOUSE OF DELEGATES

TUESDAY, MARCH 30, 1926

The meeting was called to order by the Speaker at 9 A M.

ELECTION OF OFFICERS

The Speaker The first order of business is the election of officers, and now that we have adopted the by-laws which provides for trustees, it is necessary to pass a resolution as to the method of their election. The Reference Committee on Constitution and By-Laws and the Speaker's address reports the following resolution for your consideration, and with the consent of the Chairman, Dr Sloan, I will read it and put it up to you for action, namely

"Resolved That nominations shall be made for at least five trustees. The trustee receiving the highest number of votes shall be elected for five years, the next highest for four years, the next highest for three years, the next highest for two years and the next highest for one year. In the event of a tie vote a new ballot shall be taken for the election of one or the nominees for the specific place for which such nominees are so tied. The nominee receiving the greater number of votes shall be declared elected for the specific place, and the other nominee shall be declared elected for the next lower place." Seconded and carried.

The Speaker The Secretary will please call the roll before we proceed to elections.

The Secretary called the roll and the following delegates responded

Arthur J. Bedell, Thomas W. Jenkins, James N. Vander Veer, Chauncey R. Bowen, J. Lewis Amster, Harry Aranow, Edward R. Cunniffe, William M. Dunning, Cornelius J. Egan, Edward C. Podvin, Frank M. Dyer, Joseph J. Kane, Myron E. Fisher, Raymond C. Almy, Edgar Bieber, George W. Cottis, Reeve B. Howland, Leo F. Schiff, John L. Edwards, Robert W. Andrew, William A. Krieger, E. R. Ritchie, Charles W. Bethune, John D. Bonnar, P. H. Hourigan, William W. Britt, George R. Critchlow, A. G. Bennett, Earl P. Lothrop, Sidney F. Blanchet, Clarence J. Whalen, Lyle B. Honevford, Norman L. Hawkins, Robert F. Barber, Elias H. Bartley, Thomas M. Brennan, William F. Campbell, Claude G. Crane, Roger Durham, Raymond Lauh, Charles H. Goodrich, Charles A. Gordon, Edwin A. Griffin, George D. Hamlin, Richard A. Henderson, O. Paul Humpstone, Frank D. Jennings, John E. Jennings, William A. Jewett, A. N. Thomson, J. Richard Kevin, Walter D. Ludlum, John J. Masterson, Harry H. Patrie, Thurston S. Welton, Harold A. Patterson, Nelson O. Brooks, Joseph P. Henry, Owen E. Jones, Floyd S. Winslow, Warren Wooden, Horace M. Hicks, Gustave A. Fensterer, George A. Newton, Theodore H. Allen, L. W. Zwisohn, Milton A. Bridges, Edward V. Collie, John Douglas, Robert H. Halsey, Harold Hays, William P. Healy, Ward B. Hoag, Henry Keller, Samuel J. Kopetzky, George W. Kosmak, Otto H. Leber, I. Milton Mabbott, Henry S. Patterson, William M. Patterson, James Pedersen, Abraham J. Rongy, Samuel J. Scadron, Frederic E. Sondern, DeWitt Stetten, Terry M. Townsend, Louis Tulipan, F. Leighton, Frederick J. Schnell, Robert L. Bartlett, Andrew Sloan, George M. Fisher, Albert G. Swift, T. P. Farmer, Homer J. Knickerbocker, Joseph B. Hulett, R. E. Brodie, Frank E. Fox, Carl Boettiger, Thomas C. Chalmers, Henry C. Courten, W. H. Jessup, J. R. Reuling, Ernest E. Smith, James H. Flynn, Peter L. Harvie, George Mord, Enrico C. Soldini, George A. Leitner, William B. Hanbridge, John R. MacElroy, Frederick C. Reed, Allen W. Holmes, Herbert B. Smith, Frank Overton, A. G. Terrell, Luzerne Coville, F. L. Eastman, J. Leonard Byrnes, Paul B. Fitzgerald, Francis R. Lyman, George B. Stanwin, Edward W. Weber, William R. Thomson, G. E. Stevenson.

The following officers and chairmen of standing committees were present

Nathan B. Van Etten, William H. Ross, E. Eliot Harris, George M. Fisher, Daniel S. Dougherty, James Pedersen, Howard G. Myers, Edward R. Cunniffe, Charles A. Gordon, Andrew MacFarlane, W. Warren Britt, Henry L. K. Shaw, John A. Card, Joseph S. Thomas, Nelson O. Brooks, William I. Dean, Harry R. Trick.

The following ex-presidents were present

Wendell C. Phillips, Grant C. Madill, James F. Rooney, Arthur W. Booth, Owen E. Jones.

The Speaker I will ask the Secretary to read the names of the two groups of tellers.

Dr Dougherty, Secretary

Number	one
John A. Card, Dutchess-Putnam, Thomas W. Jenkins, Albany, Luzerne Coville, Tompkins	
Number	two
George R. Critchlow, Erie, Ward B. Hoag, New York, William M. Dunning, Bronx.	

The Speaker declared the following officers and Chairmen of Committees elected unanimously: President, George M. Fisher, Utica; President-Elect, James S. Sadler, Poughkeepsie; Speaker, E. Eliot Harris, New York City; Vice-Speaker, Harry R. Trick, Buffalo; First Vice-President, John E. Jennings, Brooklyn; Second Vice-President, George M. Cady Nichols, Secretary, Daniel S. Dougherty, New York City; Assistant Secretary, Howard G. Myers, New York City; Treasurer, Charles G. Heyd, New York City; Assistant Treasurer, James Pedersen, New York City; Chairman of Committee on Scientific Work, Samuel J. Kopetzky, New York City; Chairman Committee on Public Health and Medical Education, Charles A. Gordon, Brooklyn.

any member or agent thereof shall be paid to the Treasurer of the Society. The Board of Trustees shall approve the bond of the Treasurer as to amount, form and surety, it shall employ a public accountant to audit the accounts of the Treasurer and Secretary and other agents of the Society and present a statement of the same in its annual report to the House of Delegates. The Chairman of the Board of Trustees shall make a report to the House of Delegates of its transactions for the year and of the amount of money belonging to the Society under its control."

I move the adoption of Section 35. Seconded.

The Speaker Are you ready for the question? All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida Section 36 "Three members of the Board of Trustees shall constitute a quorum."

I move the adoption of that. Seconded.

The Speaker All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida Section 37 The following shall be the order of business at meetings of the Board of Trustees

One Calling the meeting to order

Two Roll call by the Secretary

Three Reading of minutes

Four Communications

Five Reports

Six Unfinished business

Seven New Business

I move its adoption. Seconded.

The Speaker All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida In Section 37 after the word "council" insert "Board of Trustees." I move its adoption. Seconded.

The Speaker All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida The fourth line from the bottom Section 37, for the word "council" substitute "Board of Trustees." Seconded.

The Speaker All those in favor of that modification say aye, opposed, no. Carried unanimously.

Dr Sloan Section 23 Strike out the words shall have charge of all properties and the financial affairs of the Society and which means that the duties are transferred from the Council to the Board of Trustees. Seconded. Carried.

Dr Sloan Section 39 For "Council or Executive Committee" substitute "Board of Trustees," fourth line. Seconded.

The Speaker All those in favor of that say aye, opposed, no. Carried.

Dr Sloan Section 39 Seventh line. Change the word "president" to "Chairman of the Board of Trustees." Seconded.

The Speaker All those in favor of that change say aye, opposed, no. Carried unanimously.

Seventh line from the bottom, change the word Council to Board of Trustees. Seconded and carried.

The Treasurer shall be a trustee of the Merritt H. Cash Fund, the Lucien Howe Fund, and such other special funds as may be established" is stricken out because all those funds are provided for in the custody of the Board of Trustees instead. Seconded.

The Speaker All those in favor of that say aye, opposed, no. Carried unanimously.

"The treasurer shall make an annual report to the House of Delegates and then in addition to the Board of Trustees whenever requested"—that is added. Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

The Speaker "The salary of the treasurer," it says, "shall be fixed by the Council." The word "Council" is to be stricken out and "The Board of Trustees" inserted. Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida Section 42 The second sentence strike out "the members of the Council" and insert "the members of the Board of Trustees." Seconded.

The Speaker This provides that trustees be allowed railroad fares for attending the meetings. All those in favor say aye, opposed, no. Carried unanimously.

Section 42 provides that proper vouchers must be filed with the secretary and approved by the Executive Committee. "The Executive Committee" is stricken out and "The Board of Trustees" inserted. Seconded.

All those in favor say aye, opposed, no. Carried.

Section 42 states "the vouchers of such expense shall be approved by the Executive Committee." Strike out "Executive Committee" and insert "trustees." Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

Section 42 reads "provided a proper statement of such expense shall have been presented to the secretary and approved by the Executive Committee." Strike out "Executive Committee" and insert "trustees." Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

Section 42 provides "This time may be extended for any cause by the Council or Executive Committee." "Council or Executive Committee" is stricken out and "Board of Trustees" inserted. Seconded.

All those in favor say aye, opposed, no. Carried unanimously.

Dr Sloan, Oneida Section 66 After the "House of Delegates, Council" insert "Board of Trustees." Insert "Board of Trustees" after the word "Council." Seconded.

The Speaker These are the notices for the annual meeting. All those in favor of that say aye, opposed, no. Carried unanimously.

Instead of ten days' notice in order to have these all covered by the same blanket article, the House of Delegates and the Council and the Board of Trustees are all to be allowed seven days' notice instead of ten. Seconded.

All those in favor of that say aye, opposed, no. Carried unanimously.

BOARD OF CENSORS

The Speaker Article VI reads "The President, the Secretary, and the eight district councillors shall be known as the Board of Censors. The House shall elect them annually." It is moved to strike out the words "The House of Delegates shall elect them annually." Seconded.

The Speaker All those in favor of the adoption of that amendment say aye, those opposed, no. Carried unanimously.

Section 17 says the censors shall be nominated as provided in Article 6 of the Constitution and elected by a majority vote without debate. That should be stricken out. Seconded.

Those in favor of striking that out (Section 17) say aye, opposed, no. Carried unanimously.

The Speaker Strike out censors, third line, Section 14. Carried unanimously.

DELEGATE TAKES OFFICE

The Speaker Dr. Wightman introduced last year an amendment to the by-laws which is reported in the proceedings of the House of Delegates, that the term of a delegate of a county Medical Society shall begin at the first annual meeting of the House of Delegates subsequent to his election. Dr. Wightman's amendment shall be added at the end of section 19 as follows "The term of a delegate elected by a County Medical Society shall begin at the first annual meeting of the House of Delegates subsequent to his election." Now, Dr. Wightman was appointed a committee of one to think over this amendment and present it or a substitute. He has

Dr Keen, Kings I move as a substitute that the whole question be referred to the Council. Seconded. Upon a rising vote the Secretary announced forty-nine for the motion, nineteen against.

The Speaker The motion to refer it to the Council has been carried and it is so ordered.

Dr Halsey, New York I move that the rest of the report that was not referred to the Council be adopted. Seconded and carried.

PLACE OF MEETING.

Dr Schnell, Niagara I rise to present an invitation from the Medical Society of the County of Niagara to the Medical Society of the State of New York to hold the next meeting at Niagara Falls in 1927. I also take pleasure in presenting invitations from the Mayor of the City of Niagara and the President of the Niagara Falls Chamber of Commerce.

Dr Bedell moved that the whole question be referred to the Council with power to act. Seconded and carried.

RETIRED MEMBERSHIP

Dr Dougherty, New York, Secretary I move the election of the following to retired membership, they having qualified and the certificates of their County Societies having been properly presented:

"Lucius C. Andrews, Pitcher, Ernest R. Birkins, New York City, Michael Erlwein, New York City, Orlando I. Hallenbeck, Canandaigua, Philetus A. Hays, Afton, Thomas Urquhart Joyce, Brooklyn, Robert F. Macfarlane, Astoria, Emil Mayer, New York City, Benjamin Morje, New York City, George W. Sargent, Seneca Castle, Homer Erastus Smith, New York City, Richard G. Wiener, New York City." Seconded and carried.

PRESIDENT'S GREETINGS

It was moved and seconded that the House of Delegates hear from the newly elected President, Dr. George M. Fisher.

Dr Fisher I want to assure you that through the

coming year it is going to be my endeavor to give a good share of my time to the State Medical Society. I want to be among you. I want to find what you want and I want you to know what we want, and I trust that should any errors be made you will consider them errors of the head and not of the heart. I thank you.

VOTE OF THANKS.

Dr Bedell, Albany I move a vote of thanks to our hosts for supplying this excellent meeting place where I have not been suffocated by vile cigarettes and where everything about it has been made comfortable, and in going around the hotel I know that the meeting places are going to be very satisfactory. I, therefore, move you on behalf of the House of Delegates a vote of thanks to our hosts and to the Committee on Arrangements especially. Seconded and carried unanimously.

Dr Bedell, Albany I move a vote of thanks to the tellers.

Seconded and carried.

SPECIAL COMMITTEE ON COMPENSATION LAW

Dr Critchlow, Buffalo I move that the Special Committee appointed by Dr. Van Etten or a similar one be continued for another year to further study the question of the Compensation Law and report to the next House of Delegates. Seconded.

The Speaker It is necessary to suspend the By-Law on Reference Committees in order that you may act on it right away.

It was moved, seconded and carried by a two-thirds vote.

The Speaker Now you are considering the motion of Dr. Critchlow. Is there any discussion?

All those in favor will say aye, opposed, no. Carried.

Dr Bedell, Albany I move we adjourn. Seconded and carried.

The House of Delegates thereupon adjourned.

E. ELIOT HARRIS, *Speaker*

DANIEL S. DOUGHERTY, *Secretary*

Chairman Committee on Legislation, Henry L. K. Shaw, Albany, Chairman Committee on Arrangements, referred to the Council, Chairman of the Committee on Medical Economics, William Warren Britt Tonawanda.

The Speaker The Speaker in his address also made the following recommendation in regard to the election of delegates to the American Medical Association.

The By-laws of the American Medical Association provide that every third year there shall be a re-apportionment of the delegates in proportion to the membership of the constituent associations as recorded in the office of the A M A secretary on April 1, of the year in which the apportionment is made. The New York State membership on April 1, 1925, was 10,396 and on the basis of one delegate to each 750 members or fraction thereof, New York will be entitled to 14 delegates to serve in the next House of Delegates of the American Medical Association.

Section 18 of the New York State By-laws provides that the delegates of the American Medical Association shall be elected in accordance with the Constitution and By-laws of the American Medical Association. Section 2 of the By-laws of the American Medical Association states

"Delegates and Alternates from constituent associations shall be elected for two years. Constituent associations entitled to more than one representative shall elect them so that one-half as near as may be, shall be elected each year."

In order to conform to the By-laws of both the American Medical Association and the State Society, I make the following recommendation

"Nominations shall be made for not less than double the number of delegates to be elected. There are ten delegates to be elected and at least twenty names should be placed in nomination."

"The ballots voted shall not contain more than ten names for delegates. In the order of the highest number of votes cast the first seven shall be declared elected as delegates for two years, the next three shall be declared as elected as delegates for one year, the next seven as alternates for two years, and the next two as alternates for one year."

So that you elect ten delegates and nine alternates, because Dr. Wende, who was a delegate to the A M A has died but his alternate is still living

I submit that for your adoption

Dr. Phillips, New York I move its adoption

Seconded and carried

The following trustees were nominated and declared duly elected

William H. Ross, Brentwood, for five years, Grant Madill, Ogdensburg, for four years, Nathan B. Van Etten, for three years, Arthur W. Booth, Elmira, for two years, and Frederick H. Flaherty, Syracuse, for one year

The following delegates to the American Medical Association were elected for two years

E. Eliot Harris, New York City, Daniel S. Dougherty, New York City, James N. Vander Veer, Albany, Nathan B. Van Etten, New York City, Richard Kevin, Brooklyn, George A. Leitner, Piermont, and Orrin Sage Wightman, New York City

The following were elected delegates to the American Medical Association for one year

Arthur J. Bedell, Albany, Arthur G. Bennett, Buffalo, Thomas C. Chalmers, Forest Hills

The following were elected as alternates to the American Medical Association for two years

Arthur S. Chittenden, Binghamton, Thomas H. Farrell, Utica, George B. Stanwix, Yonkers, William D. Johnson, Batavia, Nelson O. Brooks, Oneida, Terry M. Townsend, New York City, Joseph B. Hulett, Middletown.

The following were elected alternates to the American Medical Association for one year

Frederick H. Flaherty, Syracuse, and Henry S. Paterson, New York City

AMENDMENTS TO CONSTITUTION AND BY-LAWS, CONTINUED

The Speaker The Chairman of the Committee on By-laws will continue his report.

Dr. Sloan, Oneida Section twenty is to be modified. It reads "The Council shall meet at the close of the annual meeting of the Society," and a number of the members of the Council would like to go away before that. An amendment was put in last year, stating the Council shall meet at the close of the Annual Meeting of the House of Delegates instead of at the close of the Annual Meeting of the Society. It will now read "The Council shall meet at the close of the annual meeting of the House of Delegates to organize for the ensuing year and shall continue in office until their successors are elected and qualified." Seconded and carried

The Speaker After the "chairmen of the Standing Committee" add "and the Editor-in-Chief of the State Journal" Seconded and carried

Now, there is an amendment placed last year that requires your action, namely, by adding after the "past presidents" the words "secretaries who shall be life members with voice but without vote." All those in favor of putting in past secretaries as members of the House of Delegates will say aye, those who are opposed, no. Carried

Dr. Sloan, Oneida Your Committee offers the following resolution "Resolved that the Executive Committee is empowered to make verbal changes in any paragraphs which do not alter the sense and to re-letter paragraphs and re-number articles and sections of the Constitution and By-laws"

I move its adoption

The Speaker The object of that resolution is to authorize the Executive Committee, where insertions have been made and new lettering is required, to re-letter, and also where new sections require re-numbering, that they may re-number them, also if there are any verbal changes required to make good English, without altering the sense, that they may have the privilege to improve the English—without altering the sense of any paragraph

That is before you for adoption. Seconded and carried

Dr. Kopetsky, New York I move the adoption of the Constitution and By-laws as a whole as amended

Seconded and carried

PROPOSED AMENDMENTS TO BY-LAWS

Section 42 Dr. Sloan I move that the By-Laws, Section 42, be amended as to \$100 being insufficient for the district branches. See Report Reference Committee on Council and Councillors page 463

Dr. Sloan I move that the By-Laws, Section 18, be amended to read as follows

Delegates to the American Medical Association shall be elected in the calendar year preceding the meeting of the House of Delegates to which they are elected and in accordance with the Constitution and By-Laws of that body

The Speaker As these are proposed amendments to the By-Laws, they will be placed on file with the Secretary

ACCEPTING EDUCATIONAL FUNDS FROM OUTSIDE SOURCES
Dr. Halsey, New York Reference Committee on reports of Committee on Public Health and Medical Education

"The Committee recommends the Board of Trustees consider the request of the Committee on Public Health and Medical Education to accept from outside sources such funds as it may deem proper for the furtherance of the work of the Committee." (Pages 427 and 463)

Dr. Bedell, Albany I move as an amendment to the committee's report, that the whole question of financing this proposition be carried on through the County Society in which the problem is presented. Seconded.

THE COUNTY MEDICAL SOCIETY IN PUBLIC HEALTH

While a movement is undergoing evolution and development, its growth and progress are not readily apparent to those immediately engaged in the work. It is impossible to form a judgment of the activities of ten thousand physicians, scattered in sixty county medical societies, unless the facts are carefully collected and analyzed, and then are compared with similar activities in past years.

The intentional deliberate practice of public health and civic medicine by physicians generally is a development of the last half decade. The science of public health became possible about two decades ago when discoveries in bacteriology rendered preventive medicine possible on a large scale. Then came a decade when departments of health developed practical methods in the art of the practice of public health, and then came a period of teaching the thousand or more health officers of New York State the modern methods of public health practice.

The departments of health of New York State and of its larger cities completed the standards of the new practice a decade ago, and then came the next step—that of bringing the standards to the knowledge of physicians generally. The work was comparable to that of teaching the physicians the standards of surgical asepsis in the decades of the eighties and nineties, and it has been done with greater facility than that of securing the practice of surgical cleanliness.

The physicians of New York State have taken a definite stand in regard to the practice of public health and civic medicine. Those who are engaged in its practice realize the immaturity of the work, but on the other hand, it is a great item of progress that a definite start has been made, and that the great army of physicians have marched ten per cent along the hundred per cent road that ends in perfect practice of the new fields of practice.

The great forward step that has been accomplished by the physicians of New York State has been the recognition of the County Medical Society as the essential agent in the practice of public health. It was formerly the custom to say "The medical profession stands for the prevention of disease", and then to leave the initiative of the practice of preventive medicine to individual physicians, while there was no one authorized to speak in the name of the medical profession. In the new development the medical societies of the counties and the State take formal action in adopting the newer standards of practice and in urging their members to act in accordance with them. There is a mutual recognition of one another by the Departments of Health and the medical societies. The depart-

ments of health are recognized as the authoritative sources of knowledge of proper procedures and power of their enforcement, and the physicians are the recognized agents in applying the procedures in actual practice to the people.

There is also a third party involved—the people themselves. They are represented by the lay organizations engaged in public health. The standard state-wide public health organization is the State Charities Aid Association, and a branch organization in each county is analogous to the county medical societies.

New York State has thus a trinity of public health organizations, all modeled on the same line. Historically, their development has been first, the State Department of Health and a local department in each city, village, and town—some 1,200 in all. (A county health department will be the next logical step in the evolution of the official public health organizations.)

Second, the lay organization develop county health committees for the purpose of combating that typical disease, tuberculosis. Their success in that field have led naturally to the extension of their work to other fields of disease prevention—to diphtheria by means of the campaign for the acceptance of toxin-antitoxin, and to the diseases of adult life by means of the periodic health examination.

Third, the State Medical Society has inspired the county medical societies to adopt the broad preventive programs which have been developed by medical leaders, standardized by other medical men in departments of health, and popularized by the lay organizations.

The birth of these ideals one after another has been slow and tedious, and attended by many mishaps and radical operations. They have weathered the usual run of children's diseases and have survived an appalling mortality in still births and defectives, but they are now lusty youths of which their triple parents are proud.

The final delivery of the newborn united trinity of public health organizations in New York State was accomplished quietly and unostentatiously, and was announced in a few modest sentences at the annual meeting of the Medical Society of the State of New York, through the formal report of Dr. C. A. Gordon, Chairman of the Committee on Public Health and Medical Education, and the after dinner speech of Mr. Homer Folks, Secretary of the State Charities Aid Association. After the lusty child has taken its first long steps and, like the infant Hercules, has strangled a few disease monsters, the story of its conception and birth will doubtless form a tale as thrilling as that of the birth of the idea of asepsis.

EDITORIALS

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Editor-in-Chief—ORRIN SAGE WIGHTMAN, M.D.,

New York

Executive Editor—FRANK OVERTON, M.D

Patchogue

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LLOYD PAUL STRYKER, Esq., Counsel, 27 William St. New York
Telephone, Hanover 4495

ATTORNEY

ROBERT OLIVER, Esq., 27 William St.

New York

EXECUTIVE OFFICER

JOSEPH S LAWRENCE, M.D

51 Chapel Street, Albany

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For list of officers of County Medical Societies, see this JOURNAL, March 15, advertising page xxiii.

MINUTES OF THE ANNUAL MEETING

A description of the Annual Meeting of the Medical Society of the State of New York appears in two issues of this JOURNAL. A general, unofficial report was printed in the issue of April 15th, and an official report of the proceedings appears in this number. The reports of the officers and committees are printed in this number with the minutes of the House of Delegates for convenience of reference. The printed reports and minutes are in constant use by the officers

and the Council, and the Executive Committee, and every member of a county society will wish to know what his delegates did at the annual meeting.

The proceedings of the annual meetings show an increasing range of activities of the State Society, some of which were unknown a few years ago. The growth in administration and medicine has kept pace with that along scientific lines.

THE COUNTY MEDICAL SOCIETY IN PUBLIC HEALTH

While a movement is undergoing evolution and development, its growth and progress are not readily apparent to those immediately engaged in the work. It is impossible to form a judgment of the activities of ten thousand physicians, scattered in sixty county medical societies, unless the facts are carefully collected and analyzed, and then are compared with similar activities in past years.

The intentional deliberate practice of public health and civic medicine by physicians generally is a development of the last half decade. The science of public health became possible about two decades ago when discoveries in bacteriology rendered preventive medicine possible on a large scale. Then came a decade when departments of health developed practical methods in the art of the practice of public health, and then came a period of teaching the thousand or more health officers of New York State the modern methods of public health practice.

The departments of health of New York State and of its larger cities completed the standards of the new practice a decade ago, and then came the next step—that of bringing the standards to the knowledge of physicians generally. The work was comparable to that of teaching the physicians the standards of surgical asepsis in the decades of the eighties and nineties, and it has been done with greater facility than that of securing the practice of surgical cleanliness.

The physicians of New York State have taken a definite stand in regard to the practice of public health and civic medicine. Those who are engaged in its practice realize the immaturity of the work, but on the other hand, it is a great item of progress that a definite start has been made, and that the great army of physicians have marched ten per cent along the hundred per cent road that ends in perfect practice of the new fields of practice.

The great forward step that has been accomplished by the physicians of New York State has been the recognition of the County Medical Society as the essential agent in the practice of public health. It was formerly the custom to say "The medical profession stands for the prevention of disease", and then to leave the initiative of the practice of preventive medicine to individual physicians, while there was no one authorized to speak in the name of the medical profession. In the new development the medical societies of the counties and the State take formal action in adopting the newer standards of practice and in urging their members to act in accordance with them. There is a mutual recognition of one another by the Departments of Health and the medical societies. The depart-

ments of health are recognized as the authoritative sources of knowledge of proper procedures and power of their enforcement, and the physicians are the recognized agents in applying the procedures in actual practice to the people.

There is also a third party involved—the people themselves. They are represented by the lay organizations engaged in public health. The standard state-wide public health organization is the State Charities Aid Association, and a branch organization in each county is analogous to the county medical societies.

New York State has thus a trinity of public health organizations, all modeled on the same line. Historically, their development has been first, the State Department of Health and a local department in each city, village, and town—some 1,200 in all. (A county health department will be the next logical step in the evolution of the official public health organizations.)

Second, the lay organization develop county health committees for the purpose of combating that typical disease, tuberculosis. Their success in that field have led naturally to the extension of their work to other fields of disease prevention—to diphtheria by means of the campaign for the acceptance of toxin-antitoxin, and to the diseases of adult life by means of the periodic health examination.

Third, the State Medical Society has inspired the county medical societies to adopt the broad preventive programs which have been developed by medical leaders, standardized by other medical men in departments of health, and popularized by the lay organizations.

The birth of these ideals one after another has been slow and tedious, and attended by many mishaps and radical operations. They have weathered the usual run of children's diseases, and have survived an appalling mortality in still births and defectives, but they are now lusty youths of which their triple parents are proud.

The final delivery of the newborn united trinity of public health organizations in New York State was accomplished quietly and unostentatiously, and was announced in a few modest sentences at the annual meeting of the Medical Society of the State of New York, through the formal report of Dr. C. A. Gordon, Chairman of the Committee on Public Health and Medical Education, and the after dinner speech of Mr. Homer Folks, Secretary of the State Charities Aid Association. After the lusty child has taken its first long steps and, like the infant Hercules, has strangled a few disease monsters, the story of its conception and birth will doubtless form a tale as thrilling as that of the birth of the idea of asepsis.

GRADUATE MEDICAL INSTRUCTION

The courses of instruction that are made available to county medical societies are not designed to make specialists out of general practitioners. They are designed to teach a few methods which specialists have found of essential use in dealing with disease conditions. The successful teachers have chosen a few methods which have stood the test of time and experience and have taught them, to the exclusion of that which is controversial or unproved.

A great difference between a specialist and a general practitioner is that the specialist is constantly trying new experiments and recording his findings, while the family doctor confines himself to the proved standards. Every case of disease is accompanied by signs which are pathognomic, and by others which are only confirmatory or accessory, or accidental. It is the business of the specialist to take note of those signs—their frequency and extent, and their presence and absence in other diseases.

It is also the business of the specialist to interpret those signs, and to separate those which indicate a harmless anatomical condition from those which indicate active disease.

When a wise specialist gives a demonstration to a class of general practitioners, he will not discuss every possible sign and symptom, but

will emphasize a few which point to a particular disease. This may be illustrated by the subject of pulmonary tuberculosis. Consolidation, exudation, cavitation, fibrosis, and enlargement of glands may produce an array of signs which require two pages of text for their mere enumeration. But the signs on which an expert clinician depends are surprisingly few, and a knowledge of them may be readily imparted to a class of physicians. If these few signs are well learned and the methods of eliciting them are acquired, the physician will be able to diagnose practically all his cases of incipient tuberculosis. Yet after a teacher has demonstrated the essential signs it frequently happens that some one gets up and discusses a number of other signs to the great confusion of the students. The point is not whether or not these signs are present, or whether or not they are valuable—the point is that if one sign is of great value in nearly every case, there is no need of burdening the doctor's mind with unnecessary facts.

The secret of the success of the demonstrations made under the auspices of the Committee on Public Health and Medical Education has been that the teachers have emphasized the points which are of essential value in diagnosis and treatment.

THE AMERICAN MEDICAL ASSOCIATION MEETING

The Annual Meeting of the American Medical Association was held in the City of Dallas, Texas, from April 19th to the 23rd inclusive. It was a wonderful demonstration of the interest taken by medical men throughout the union in things pertaining to the scientific advance in medicine.

The City offered ample accommodation to the five thousand odd physicians who were in attendance. More could not have been done to make the delegates comfortable and the City of Dallas is to be thanked for its cordial hospitality to every visiting physician. The Meeting was noted for an unusual smoothness of procedure. The scientific sessions were held at the Fair Grounds under very fortunate conditions.

As Dallas likes to be called a City of the south-west the meeting was attended by a large group of medical men from this part of the country, men who would ordinarily not have the opportunity of being present at a great medical meeting unless it was near home. They came by the score, proud of their State, proud of their profession and presenting a clean cut type of doctor, well worthy of the profession.

Dr McReynolds as President of the Dallas County Society, accepted the responsibility of

host and left no stone unturned in the entertainment of his guests. There were receptions, golf tournaments, concerts, luncheons and dinners. The social phase met its climax in the barbecue held in honor of the visiting physicians. The difficulty of following the procedure of any meeting where the business is referred to committees, is in securing the amended report as formally adopted by the Association. These reports in due time will be in print and can be read by all who are interested as they will be printed in the JOURNAL.

A visit to the Scientific Exhibit brought home more strongly than ever the close relationship which exists between the manufacturer of instruments, of drugs, the publication of books and many other things necessary to the medical profession.

Much painstaking care was shown by all exhibitors to anyone who seemed interested. It was more than a duty, it amounted to a privilege to stand in a booth from nine until five, answering the questions of an interested moving audience.

The sections in the side halls were crowded, amplifiers from the platforms intensified the voice of the speakers so there was no difficulty in be-

ing heard In noting the amount of work necessary to prepare section rooms, we were reminded of the admonition of Dr Olin West, Secretary of the A M A, when a meeting place for the Annual Session was under discussion He stated that many cities, while most hospitable in relation to entertaining a guest, did not realize the immense amount of time necessary to secure a proper place for scientific and section meetings There is an endless amount of detail to secure dark rooms, lantern facilities, loud speakers, moving picture facilities, etc, and in spite of the fact that the local authorities assume this responsibility the fact is the parent organization has to see it is properly done It takes a big thriving city to handle the situation, one which has not only hospitality but facilities

New York State was particularly interested in the resolution offered by one of its members and passed by the house of delegates, congratulating Governor Smith on his published platform with regard to the medical profession and the request that he see fit to sign the Medical Practice Act Bill, recently passed by the Legislature

Dr Phillips as new President of the Association was very well received His address was constructive and showed a sincerity of purpose which should materially contribute to the advance of medicine during his administration

Dr Matthias Nicoll, Jr, Commissioner of Health of the State of New York, as Chairman of the Committee on Public Health, very ably presented the relationship which exists between the physician and those engaged in public health activities

There was nothing of a startling character brought out at the meeting which has not already been reviewed in the literature The impressive feature was the immensity of medicine in all its forms and the fact that we are dealing with a public commodity when we handle the health of the people This can be no private prerogative on the part of the physician, as he is only one agent in the prevention and treatment of disease and should be willing to co-operate in any way which would mean better health and longer life to the community

The meeting in Dallas was a great success

LOOKING BACKWARD—THIS JOURNAL TWENTY-FIVE YEARS AGO

This JOURNAL for May, 1901, contains a letter from Dr Francis M O'Gorman referring to the alleged demonstration of the parasitic origin of cancer It says

"Situated in the City of Buffalo is the State Laboratory for the investigation of the cause of carcinoma For three years or more this work has been carried on under the direction of Dr Harvey R. Gaylord, and from time to time he has informed the medical profession that the cause of cancer would be stated positively and definitely in a short space of time. The profession waited patiently for the day when a demonstration and proof of the true cause was to be made. Eagerly did we accept the invitation sent out to the effect that we were to be told the cause of the dread disease. The profession assembled in the Alumni Hall of the Medical Department of the University of Buffalo and listened with great joy and pride to what Dr Gaylord told them. He stated that he was now in a position to positively

prove by correlating the observations of other investigators, that the cause of cancer is a parasite. Congratulations were extended on all sides for being so fortunate as to live in such a wonderful age, and, more so, to be among the men to whom this great discovery was first announced"

Dr Gorman then goes on to doubt the reliability of discovery He also calls attention to the claim of another doctor, announced in the morning paper, that he had demonstrated the parasitic three years previously and that as the result of his discovery, he has been able to treat cancer successfully, as is believed and corroborated by both the laity and reputable physicians

In this year of our Lord, 1926, we still hear of the discovery of cancer parasites and of the exploitation of cures by advertising physicians



MEDICAL PROGRESS



Fasting as a Cause or a Cure of Convulsions

—Hugh Josephs, writing in the *American Journal of Disease of Children*, February, 1926 (xxxi, 2), suggests that short fasting periods may be a cause of convulsions in children, especially that type of convulsion which is seen at the onset of acute infections. He points to the frequency with which convulsions occur in the early morning in children who have recurring attacks of eclampsia. In studying several cases in which recurrent convulsions occurred with the onset of infectious disease, hypoglycemia was found to be an accompaniment although the blood sugar concentration was not excessively reduced. Acetone bodies have been found early in the attack in the cases studied, but their diagnostic significance is not very great. Vomiting took place in a number of the cases and in some it overshadowed the convulsions to such an extent that the cases were classified as "recurrent vomiting." There seems to be much evidence accumulating that recurrent vomiting in many cases is dependent upon hypoglycemia. It would appear probable, then, that attacks of recurrent vomiting and the convulsions described in this paper are both manifestations of the same condition. The therapeutic test—rapid recovery after the administration of glucose—is useful only when the child has shown no tendency to spontaneous recovery, as in one of the cases cited. As spontaneous recovery is the rule, the therapeutic test has a very limited application. The author proposes a test—the estimation of the fall in blood sugar concentration during a sixteen-hour fast—which he thinks may prove to be of value.

This eclamptogenic action of fasting does not appear to be apprehended by P. Karger, who has an article in the *Klunische Wochenschrift* of March 19, 1926, in which he strongly advocates abstention from food as a therapeutic measure in cases of repeated seizures threatening status epilepticus in children. The fast, the author says, will be of benefit, even if not curative, in the majority of cases, but it should not be prolonged beyond one week. What is the mechanism, he asks, whereby this benefit is obtained? Is it the mere abstention from food? May it not be inanition acidosis which confers the improvement? The author has incidentally tested every conceivable diet with a view to associating it with fasting. A regimen of meat, eggs, and cream naturally favors the development of acidosis and despite the fact that in general flesh foods are held to be harmful to epileptics the author has seen benefit from a

brief use of the diet in question which may be used for a few days after a fast. As for any diet securing acidosis without the fast, that seems impossible. After fasting-acidosis has appeared it is easy to get the acetone out of the urine by having the patient drink slightly sweetened water or tea, but with its disappearance the seizures grow worse. It appears that not every one can benefit by the acidosis diet and we cannot tell in advance who will be helped. The author has tried the fat-free diet without any benefit and this is true also of a non-protein diet and a salt-free diet. The bulk and consistency of the food should be kept down, a fact known for generations to epileptologists, but here it is a question rather of quantity than of composition of food. Too much and too indigestible food certainly has a bad influence over the number of seizures.

Treatment of Puerperal Eclampsia—

Howard F. Kane (*Surgery, Gynecology and Obstetrics*, April, 1926, xlii, 4) discusses the etiological theories of eclampsia which have had the strongest support, namely infection, glandular dysfunction, incompatibility between fetal and maternal blood, fetal toxins, and diet and faulty elimination, and makes a plea for conservative treatment. In treating eclampsia all possible causes should be borne in mind and efforts should be directed toward combating them. The influence of diet and faulty elimination has practically been proved by the clinical results of treatment directed toward the correction of errors in this particular. At the Freedmen's Hospital, Washington, D. C., the attempt has been made to employ every method which seems to have value. Believing that the convulsion in itself is a source of grave danger, an attempt is made to control it by the use of morphine, $\frac{1}{2}$ gr. with the first convulsion and $\frac{1}{4}$ gr. with each succeeding convulsion until the respirations fall to 10 per minute. No anesthetic is used. After the patient is narcotized elimination is effected by stomach lavage until the return is clear, and then by colonic irrigations of 5 gallons of 5 per cent sodium bicarbonate solution. After the lavage 2 ounces of magnesium sulphate is introduced through the tube. The irrigation is not repeated, as one flushing seems to clear the bowels. If the blood pressure is above 170 mm. venesection is performed, 600 to 1,000 c.c. being withdrawn, or less if the blood pressure falls to 150 mm. This measure the author regards as of the greatest importance. After venesection, 10 per cent glucose solution intravenously to the amount of

500 c.c. is administered in the hope of thereby aiding the regeneration of damaged liver tissue. Acidosis is combated by retention enemata of 6 ounces of glucose and soda solution, 5 per cent each, every four hours. Profuse sweating is not induced and veratrum viride is not used. Unless the second stage of labor is very rapid, delivery is hastened, after full dilatation of the cervix, by forceps or version. Cesarean section is reserved for the primipara with an undilated cervix in the occasional case which does not improve under conservative treatment. In the author's series of 18 cases, 10 were treated conservatively without a death, 3 cases in which cesarean section was performed soon after admission terminated fatally. All cesareanized eclamptics, however, do not die, and many eclamptics will die in spite of all treatment.

Cerebral Affections Following Vaccination—Professor Carl Leiner of Vienna discusses the cases of encephalitis and meningitis which have been reported in the past few years as developing from 9 to 15 days after vaccination. There is nothing in the older history of this resource to point in this direction. Vaccinia is chiefly a local reaction although exceptionally this becomes general—so-called generalized vaccinia. In any kind of generalized infection there may be an intracranial complication, although in general vaccinia nothing of this sort has hitherto been reported so far as the author's search through the literature gives evidence. It is stated only that the local reaction in these cases is usually pronounced. In 1923 Lucksch saw personally three cases and knew of four more, and of the seven children five died; he obtained two autopsies and was able to show beyond doubt that death had been due to encephalitis. Then Bastiaanse of The Hague collected notes of 34 similar cases which had occurred in the whole of Holland during 18 months of 1924-25 with a mortality of over 40 per cent—deadlier if anything than ordinary epidemic encephalitis. In addition several cases of serious meningitis have been reported. The author has seen three cases of encephalitis in Austria and reports that not only the encephalon but the cord and peripheral nerves may be involved, so that the affection may be spoken of broadly as a meningoencephalomyelitis with polynenritis. Fortunately his patients all recovered. There are two possibilities in regard to causation—one of indirect causation in which vaccination may be supposed to activate the exciting cause of epidemic or herpetic (laboratory) encephalitis, and the other of direct causation in which the exciting organism of vaccinia directly attacks the brain. What must be done to prevent the serious complication? We must not vaccinate any child with a cutaneous lesion or with tuberculosis, etc., lest we cause too severe a reaction

and, further, the strength of the lymph should be reduced from 1 10-1 20 to 1 100-1 200. Strong reactions are not desired.—*Medizinische Klinik*, March 19, 1926.

Neurolapine and the Alleged Vaccination Encephalitis—W. F. Winkler, chief of the University Hygienic Clinic of Rostock, refers to certain so-called "cultures" of vaccine produced *in vivo* by inoculation of various tissues, including the nervous. According to his nomenclature dermovaccine results from ordinary vaccination, and neurovaccine is produced by brain inoculation, the animal of choice for the latter being the rabbit, Levaditi of Paris, who first made these cultures, termed them neurolapines from *lapin*, rabbit. This work of Levaditi dates back to 1921. Quite recently isolated cases of cerebral symptoms, suggesting encephalitis, following vaccination have been reported from Holland, Czechoslovakia, and Germany, and from Switzerland there have been reported two cases of serous meningitis. This is something quite new in the annals of vaccination and the few cases reported, in view of their extremely small evidence must be regarded as calling for careful investigation. Variola and vaccinia have not been known to be neurotropic hitherto, although Levaditi, after his production of neurolapine, wondered whether nervous tissue did not show a slight predisposition to react to the virus. It is possible, as shown by the spread in recent years of lethargic encephalitis, that the central nervous system of civilized man is beginning to show lack of resistance to certain viruses to which it was once immune. The modern appearance of metasyphilis and of poliomyelitis points in this direction. It may be that vaccination must act in concert with some unknown casual factor in order to elicit brain symptoms, therefore until we know more of this new complication it is well to be circumspect in the vaccination of children who suggest any vague infectious process, as shown by the general condition. The author has made many original investigations with these vaccine types preparing dermovaccines and neurovaccines from rabbits and vaccinating human beings as well as rabbits *in vivo*, but has been unable to see any evidence of neurotropism in the general reaction. Neurovaccine produces typical vaccine pustules, also some abortive forms.—*Deutsche medizinische Wochenschrift*, March 19, 1926.

Relationship Between the So-called Herpes Virus and the Virus of Variola—B. Heymann gives an interesting account of a rediscovery by modern laboratory men of a fact well known to Jenner. Recently, thanks to the research of a number of workers, much has been learned on the experimental side of the properties of the serum of herpetic vesicles in causing laboratory disease

in animals This principle, from its contagiousness, seems to be responsible for cutaneous disease of a certain type among the poor and crowded It has also been noted that when these children are vaccinated there is a certain antagonism between this principle and vaccine virus, for the latter takes in an atypical manner The two show much parallelism in animal experiments, but thus far one serum will not immunize an animal against the other, so that any question of identity should not come up It is of much interest to note that Jenner was thoroughly familiar with the fact that children with herpetic eruptions gave trouble to vaccinators of the period, and he contributed a long article on the subject in an epistolary form to the *London Medical and Physical Journal* in 1804 It is not easy to divine just what Jenner meant by herpes, but study of contemporary dermatologists, notably Willan, who also was very familiar with the Jenner phenomenon, shows that any eruption in the form of clusters of small vesicles was so understood, whatever might be its intimate nature If the crops of vesicles were recent more interference resulted than if they were old, for with the latter vaccination often took properly Jenner points out that the same inhibiting effect was seen in the practice of variolation or direct inoculation of patients with smallpox virus After several years all knowledge along this line seems to have died out until the recent discoveries of Doerr, Levaditi, and others—*Deutsche medizinische Wochenschrift*, March 12, 1926

Infectious Muscular Erosion—Few cases have been recorded in which infections have caused herniation of the large bowel through muscular erosion A case described by Mast Wolfson, with a discussion of the X-ray findings by Lloyd Bryan (*Boston Medical and Surgical Journal*, April 1, 1926, xciv, 13), occurred in a woman, aged 38, whose chief complaint was pain in the right lower quadrant and in the right leg She entered the hospital in May, 1920, and remained for three months, during which time she ran a low grade septic temperature As she had had a cesarean section seven years previously, and a month before several gynecological operations, and physical and x-ray examinations were negative, the diagnosis was post-operative adhesions and hysteria Several months later, the patient was again sent to hospital and this time was dismissed with the diagnosis of neurasthenia Then followed a long history of recurrent abscess in the lower lumbar muscles, under the iliac crest The contents of these abscesses showed at different times nonhemolytic streptococci, Gram-negative diplococci, colon bacilli, and finally tubercle bacilli The x-ray examinations during this period were negative At length, in May, 1925, a large mass, 9 cm in diam-

eter, was found over the iliac crest The mass was soft, fluctuant, and there were no signs of muscle guarding over the area Slight pressure caused the mass to disappear, and on release of pressure it immediately returned Roentgen examination, with an opaque meal and injection showed the descending colon and the sigmoid to be displaced slightly to the right, and the ascending colon and cecum extending through the lumbar muscles posteriorly into a large hernial sac At operation, through an incision over the right iliac crest, no muscles could be demonstrated until the sac of the hernia was dissected free of the adjoining tissues down to the hernial opening, which was directly over the right iliac crest and was about 4 inches in diameter, this also revealed the remains of an old perforated retrocecal appendix, at least 8 inches in length, much injected, and with an abscess about the size of a walnut at its tip After removal of the appendix and closure of the hernial opening, the patient made an uneventful recovery The case shows what sequelæ may result from an undiagnosed appendical abscess

Regulation of the Salt Intake in Therapeutics—H Finkelstein, writing in the *Munchener medizinische Wochenschrift* of March 12, 1926, discusses the possibility of increasing the resistance of the tissues to microorganisms through diet and the alternate plan of making the soil unfavorable for the growth of the germs, and adds that the younger the patient the more such possibilities are in evidence At first sight it would appear that the two plans are mutually opposed, for while the first suggests a hypernutrition the second equally suggests restriction of the diet This would seem to make it difficult or impossible to combine the two plans in the same subject In this connection we first think of Czerny's theory of the exudative diathesis in nursing infants, for Czerny long ago showed that these infants become worse on a nutritive diet, one rich in milk, and improve strikingly on a milk-free and salt-free diet These infants are overweight and show water retention and a kind of water-logging of the skin and subcutaneous, mucous, and submucous tissues, due to lymph stasis They are predisposed to hypersecretion and exudative processes Just how far milk is injurious from its salt content alone does not appear, but this is regarded as an important factor over and above any others On the so-called dry treatment these infants improve strikingly The same principle appears to hold good for older children and adults who present symptoms suggestive of the exudative diathesis, and the salt-poor diet should always be tried here The opposite conditions prevail in the tuberculous child despite the fact that one with the lymphatic diathesis is very susceptible

to the attack of the tubercle bacillus Here the patient should receive an excess of salt, for his condition is one of water elimination and salt will promote retention At the same time there should be a minimum of sugar and sugar formers for these are believed to encourage the proliferation of organisms in the tissues

Nature of Trachoma—Krumbach of the ophthalmic clinic of the University of Munich sums up an extensive digest of the more recent studies of trachoma in part as follows The epithelial inclusions are not peculiar to trachoma nor to the conjunctiva and have no significance, not even diagnostic The consensus of opinion among the great majority of writers is that certain factors are requisite for the occurrence and endemicity of the affection—first a specific exciter of which we know only that it belongs to the filtrable and ultraviolet viruses, it can transmit the disease in 24 hours by contact, as in kissing and the use of handkerchiefs or towels in common and through the agency of flies Second, a certain peculiarity of the lymphoid or adenoid tissue of the mucous membrane of the eye which may be dependent on a third factor, that of a community in which hygiene and sanitation are defective and in which there are mostly individuals of a lymphatic or asthenic habitus Such communities form natural breeding places of trachoma This doctrine, while containing nothing intrinsically improbable, is in harmony with all of the known clinical facts—*Klinische Wochenschrift*, January 22, 1926

Treatment of Epithelioma of the Skin—De Rezende comments on the absence of any mention of caustics in the successful treatment of epithelioma in the standard dermatological work of Sequeira, the London authority, who discusses only the knife, roentgen rays, and radium in this connection This omission may be excusable in city practice, especially in the large cities of the world where there is every convenience for hospitalizing and treating patients by the methods above stated, but the author who practises in a small city in the State of Sao Paulo, Brazil, found it advisable to utilize the old method of chemical caustics Beginning in 1915 he was able to make a very favorable report three years later in the *Brazil-Medico* The application recommended in place of an arsenical or caustic potash or other caustic paste was a complicated mixture containing arsenous acid, sulphate of copper methylene blue, methyl violet, quinine hydrochloride, and tartar emetic with other substances evidently intended to diminish the pain—camphor, menthol, phenol, and antipyrine While

the results were good there were numerous disadvantages so that the author revised his formula by omitting the methylene blue and methyl violet and adding chloral hydrate, while at the same time he made use of basilicon ointment as an excipient He has had no occasion to modify the formula further The latter is composed of 10 gms of the ointment with 1 gm each of antipyrine, crystalline phenol, camphor, chloral hydrate, and menthol, 0.25 gm each of arsenous acid and sulphate of copper, 0.50 gm tartar emetic and 0.75 gm quinine This ointment causes an intense inflammatory reaction followed by free suppuration To produce this effect it is not necessary that the lesion be ulcerated The ointment is applied repeatedly when necessary in order to produce the reaction The author has many photographs which illustrate the success of his method—*Brazil-Medico*, February 20, 1926

Bulbocapnine in the Treatment of Tremor—Dejong, of Amsterdam, demonstrated that the tremor of paralysis agitans can be controlled by the use of bulbocapnine, and he also found that by the administration of large doses of this drug a syndrome simulating catatonia could be produced These experiments have been repeated and confirmed by Hugo Mella (*Archives of Neurology and Psychiatry*, March, 1926, xv, 3) If bulbocapnine (one of the alkaloids of *Corydalis cava*) is given to a cat in doses of 40 mg per kilogram of body weight, the cat goes into a typical "fixed posture" within about ten minutes It may be set up on its haunches with its forepaws against a support and will remain in that position for several hours Voluntary motion ceases The animal can be bent like a piece of lead pipe If the dose be increased above 40 mg per kilogram of body weight, tonic and clonic convulsions follow, and death ensues With the ordinary dose, the animal recovers its normal motor activities within from twelve to eighteen hours, and shows no after-effects In an elderly man with paralysis agitans, twenty-four minutes after the injection of 200 mg of bulbocapnine no tremor was registered on a kymograph The effect lasts from three to six hours then it is necessary to repeat the dose The drug has been given by mouth, but requires a little more time to take effect The experimental work on animals seems to indicate that bulbocapnine may be of value in the study of catatonia Some preparations being combined with other alkaloids, are toxic and should not be used in the doses mentioned



NEWS NOTES



LEGAL OPINION REGARDING CHIROPRACTORS INTRODUCTION

By REED B. DAWSON, Counsel,
Medical Society of the County of New York.

In the prosecution of irregular, unlicensed practitioners, especially chiropractors, the authorities entrusted with the enforcement of the Public Health Laws have been for some time seriously handicapped by a lack of uniformity of interpretation of provisions of the Medical Practice Act among the numerous magistrates before whom in the first instance, prosecutions have been brought. In order to secure a uniformity of ruling with respect to chiropractors and definitely to settle their legal status, District Attorney Banton of New York County, through his assistant, Michael A. Ford, in charge of enforcement of Public Health Laws, with the very efficient cooperation of Dr. Louis I. Harris, New York Commissioner of Health, and George V. McLaughlin, Police Commissioner of New York, secured evidence against 50 chiropractors openly "practicing" in

New York County. After these cases had been prepared, the entire situation was laid before Chief Magistrate William McAdoo, and the desirability of having all of these cases heard before him pointed out. The Chief Magistrate readily offered to hear the cases.

During the course of one of the hearings at which were present over 40 defendant chiropractors, their counsel and friends, the Chief Magistrate delivered the opinion which is set forth below. I have never had the pleasure of hearing or reading a finer or clearer exposition of the law on any point than that contained in the Chief Magistrate's opinion.

There is no chiropractic claim which is not dispelled in a manner so plain and convincing as to make them ridiculous.

THE OPINION OF MAGISTRATE McADOO

The law of this State is very careful to protect the public from irregular and unlicensed practitioners, in both the law and medicine. It recognizes that these two great professions, one dealing with the liberty of the person, the rights and responsibilities of citizens and the powers of Government, and the other which deals with individual and communal health, the prevention of disease, the cure of disorders, the prolongation of life against diseases, epidemic or endemic, should be carefully regulated as to those who practice, so that it may be free from the irregularities of unlicensed practitioners and the shysters and quacks who prostitute these professions.

In the law, it has guarded the profession by giving semi-judicial powers of inquiry to Bar Associations for disbarment where the facts will warrant it, so that the law is much better protected than medicine in respect to the licensed persons who practice that profession or who assume to do so without a license.

In an age of cults in a big city like this, we have large numbers of healers by the occult, healers by the mechanical, healers by the mysterious, healers of the mind and healers of the body, and the title "doctor" has become so common outside of those legally entitled to the appellation, that it is a matter of distinction not to be called one. Most of these cults had their origin long ago and died a natural and proper death. They have now been resurrected, disguised in new clothing, and put forth as fresh discoveries. Their sponsors say they are based on common

sense, which in this instance is scientific nonsense. With many of the sick there are no limits to their credulity and they grasp at anything that holds out the shadow of hope. The Medical Barnums follow the same rule as the showman, and with financial success.

Mysterious boxes containing electric power, and which electricians laugh at, patented, mechanical disease detectors, that in effectiveness are below the charms of the Indian Medicine Man and all this with literature and advertising and publicity in which stand out words about "systems," "discoveries," "mysteries" and "muscles" and finally about "dollars."

Altogether fifty defendants have been summoned before me for practicing medicine without a license under the Public Health Law, Article 8, Section 160, and those which follow. All of them proclaim themselves as Chiropractors and several of them have gone on the stand and described the methods used by them on patients who come to them for relief or cures for various ailments, disorders and diseases.

The evidence produced here against the defendants comes from women police officers acting under the Health Department. The evidence given by these officers is substantially the same in all of the cases. Slight variations as to the facts would not, in my opinion, alter the legal aspects as against any one of the defendants.

The officer went to the office of the Chiropractor, complained of various pains, aches, disorders and symptoms indicating disease or an ill condi-

tion of the body In some of the cases the Chiropractor accepted these symptoms as the diagnosis made by the patient herself and proceeded to give her the treatment which these people administer to all who come to them There was in some of the cases a variation in that the Chiropractor expressed opinions as to the causes of the patient's ailments, which, in my judgment, amounted to a diagnosis of the kind usually made by physicians

The treatment as testified to here is based on the idea that all bodily ailments and diseases are caused by lack of tonicity in the nervous system, or by impingements of the vertebrae at some points on the spinal cord, from which radiates nerves to different organs and parts of the body The treatment therefor is what they call "adjustment of the vertebrae" so that it shall be like a chain suspended in air, in which the links all meet evenly and are articulated regularly and properly This adjustment beginning at the neck proceeds the full length of the spine The adjustments have to be made frequently and there does not appear to be any permanent adjustment following one or more manipulations Some of the Chiropractors combine massage and something approaching Osteopathic practice with Chiropractic, and these apply themselves to the whole body, the circulatory as well as the nervous system

In many of the cases, if not in most of them, the patient was advised as to diet and the dietetic rules laid down were similar to those known to people in general in connection with certain diseased conditions of the body As diet is now considered by all regularly licensed physicians as most essential in the relief and cure of disease, I consider that giving the patient rules as to diet is really prescribing the same as physicians in general do, and as there is no professional diagnosis by learned and expert physicians, the patient's symptoms are followed as a rule with regard to diet

In the case of these policewomen, who are in good health and suffering from no bodily disease, and who gave false and simulated symptoms, the Chiropractor did not hesitate to advise long courses of treatment and a very rigid diet, which might or might not be injurious to a healthy person

The Chiropractor, in general, will not admit that diseases are caused by the inhalation or inoculation of germs into the body On the contrary they claim that if what they call the tonicity of the general nervous system is kept up, everybody would be immune to the leading diseases such as Typhoid Fever, Pneumonia Tuberculosis, Diphtheria and Malarial Fevers In this connection it is well to remember that the leading causes of death throughout the United States as to diseases, are Tuberculosis, Pneumonia, Heart and Vein diseases, Bright's Disease, Cancer and Diphtheria

As against the treatment of ailments and dis-

eases by these people we have to keep in mind that the laborious, patient, highly scientific and unselfish efforts of doctors have practically abolished Yellow Fever, not only on this Continent but throughout the World, and of course malarial diseases to the same extent, by demonstrating beyond doubt that these fevers come by inoculation by mosquitoes carrying the germs The same may be said about Typhoid Fever and Diphtheria, not to speak of the conquest of Cholera among animals This learned, expert, scientific profession hopes in the future to conquer both Cancer and Pneumonia and everyone knows what they have done in lowering the death rate in Tuberculosis

All this has been done as the science of medicine has advanced, not so much by the use of drugs, as was formerly the case, but by discovering the sources of the disease and meeting these life killers at their origin and destroying them

It is a matter of life and death with the patient whether he or she shall be treated by physicians thoroughly acquainted by long courses of study and actual observations and practice in the dissecting rooms and at the great hospital clinics, or venture the most precious possession, health and life itself into the hands of people, who call themselves Chiropractors or what not, and who may be entirely ignorant of anatomy, physiology, and materia medica, and who simply practice so that by the use of their fingers they can manipulate the vertebrae making the segments snap, which often conveys to the poor patient that some wonderful mechanical adjustment is being made which will cure all of his physical troubles, ailments and diseases

I am convinced that all of this is contrary to Article 8 of the Public Health Law and that these people whether they put it on their cards or literature are really holding themselves out for "doctor" in the common acceptance of that word as it is used among people in general

If I am ailing why do I go to a Chiropractor? I go there to get relief from physical ailment I go there to be cured of disease Why should I pay anyone a considerable sum of money if I am not suffering from pains, disorders and diseases, which I believe that person can cure or at least relieve Would I pay the Chiropractor if he or she told me in the beginning "I will not diagnose your ailments", "I do not know what they are, I have not the expert knowledge of a physician, it is against the law for me to tell you what I think I will accept any statement you make and I do not propose to cure you, I will only relieve you, it will be a temporary relief and you must come frequently to me and let me manipulate your spine" In view of such a statement, would I put myself under the charge of a Chiropractor and pay him or her money It amounts in other words to saying—"I am only relieving you temporarily by adjustment of your

vertebrae I am totally ignorant as to what ails you I am going on the theory that if I can get your vertebrae in line with the spinal cord and the other nerves, I will relieve you" I use this word "relieve" because all of the Chiropractors insist with emphasis that they do not propose to cure anything They avoid this word "cure" because it is in the Statute It is useless in this connection with this as a legal proposition to argue that Chiropractic, like Osteopathy and Massage, may be useful in the treatment of disease under the care and direction of a licensed and practising physician

One witness here said that the Doctor he consulted, a regular licensed physician, made a false diagnosis of his troubles for which he paid him and took a prescription Why, certainly there are men both in the medical and law professions who are a disgrace to it Some of them are ignorant Nearly all of them prostitute the profession to get all the money they can out of the dupe clients and patients The majority of both these professions try to rout these fellows out every chance they get We do it through the Bar Association here in New York, and even they, God knows, don't get as many as they should of the shysters who rob people and facilitate and increase crime by aiding criminals in illegal methods

Article 8, Section 160 of the Public Health Law defines the practice of medicine as follows

Subdivision 7—The practice of medicine is defined as follows A person practices medicine within the meaning of this article, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain injury, deformity or physical condition, and who shall either offer or undertake, by any means or method to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition

It will be noted in reading this Section that what cannot be done legally is in the disjunctive, and therefore, we could read it like this

"Who holds himself out as being able to diagnose, who holds himself out as being able to treat, who holds himself out as being able to operate or prescribe for any human disease, who holds himself out as being able to treat pain, who holds himself out as being able to treat injury, who holds himself out as being able to treat deformity or physical condition, and who shall either offer or undertake by any means or method to do any of these things"

Under these conditions I find that all of the defendants, as far as I have examined the cases, are violating the provisions of this Act, even if they only manipulate the spine and adjust the vertebrae, to use their own terms, and they, accordingly, should be held for trial in the Court of Special Sessions

The evidence taken in these cases has been under Section 82 of the Inferior Criminal Courts Act, which reads as follows

Section 82—Summons a When a complaint, oral or written, is made to a magistrate and the magistrate believes that in the public interest he should inquire into and investigate the complaint so made, he may, in his discretion, issue a summons which shall be substantially in the following form (See printed form attached)

I have taken formal complaint in most of the cases and I will do so with regard to the remainder When a formal complaint is taken the defendant would be sent to the District Magistrates' Court where the offense was committed, unless Counsel will waive that If any of the defendants insist upon a formal examination and no agreement has heretofore been made with the Court as to waiving that, I will transfer the case to the District Court and arrange the hearings so that I can go there myself and hear them.

There are many leading cases and among them are the following, which are controlling

People against Allcutt, 117, App Div 546

People against Somme, 120, App Div 20

People against Mulford, 140, App Div 716

People against Ellis, 162, App Div 288

Now, I want this to go out to the people of New York This whole proceeding, what happened here this morning, is conclusive evidence that this law should be changed so as to remove all doubts as to the jurisdiction of this Court. Now, look at the farce of the law Here are 41 people charged with endangering the health, communal and individual, and I, as a Magistrate, the best I could do for them is to give them what amounts to a full trial and inquiry under the summons, an elaborate hearing with able lawyers, like Mr O'Rorke to conduct what amounts to a full trial, absolutely, and argument on the whole law, going to the basis of it, involving the safety of the community and its health and its life, and I have to sit here wasting the public's time and passing along this case from an inquiry to a formal examination, to a remote District Court, down to the Court of Special Sessions, where already they have begun making motions to take these cases before the Grand Jury, and where undoubtedly they will make the same motions when they get these down there—in a simple matter of law and fact that any sensible magistrate could decide in an hour There are the eccentricities of the law, and people wonder why the law doesn't work Look at it! Why doesn't the law work? You make a farce of the law, make a joke of the law—full of technicalities, until the layman outside says, "Do we get justice?" And the answer is, "No, we don't get justice" The law transfers and transfers and adjourns Any common sense layman would say "Why shouldn't Judge McAdoo try the case." These defendants have

plenty of law for an appeal up to the higher courts if I make any error. But here a great question of public health is going to go off into the air. I feel I have done my duty, hampered and tied as I am. The law of criminal procedure

has become a box of tricks, and the constitution instead of being the paladium for the rights of honest men has become an ark for crooks, and metaphysical subtleties, a synthetic substitute for justice.

APPROVAL OF PRACTICE OF MEDICINE ACT BY THE AMERICAN MEDICAL ASSOCIATION

The Delegates at the Annual Meeting of the American Medical Association were interested in the fate of the Practice of Medicine Act in New York State and unanimously passed the following resolution:

"The medical profession of the United States as represented in national convention at Dallas, Texas, congratulate the Governor of the State of New York, Hon. Alfred E. Smith, in his demand for higher standards of medical education and the protection of the health of the citizens of the Empire State, so well outlined in his legislative message on assuming office. We further pray that there may be no deviation from this course,

and ask that full consummation be realized by affixing his signature approving the Medical Practice Act recently passed by the Legislature of the State of New York."

At the suggestion of Dr. Orrin S. Wightman, Editor-in-Chief of the *NEW YORK STATE JOURNAL OF MEDICINE*, the following telegram was sent to Senator Webb and Assemblyman Loomis:

"Delegates of New York State assembled in national convention at Dallas, Texas, congratulate you for your efficient, also successful consummation in the passage of the Medical Practice Act."

THE GOVERNOR'S HEARING ON THE PRACTICE OF MEDICINE BILL

"Smith to sign bill clearing the State of quacks" is the announcement with which the *New York Herald-Tribune* of Thursday, May 13th, heads a column article describing the hearing on the Practice of Medicine Bill held by the Governor on the previous evening. The *New York Times* also carried the heading "Executive indicates that he will approve measure aimed to rid the State of Quacks." While the Governor did not actually say that he would sign the bill, and even told the attorney for the chiropractors to file a brief of his opposition, yet his attitude was entirely favorable toward the bill.

The hearing was held in the Executive Chambers. The room was filled and between 300 and 400 persons were present. Women predominated, and judging by their applause most of them favored the chiropractors.

Governor Smith said he would follow the usual procedure in hearings and would consider the opposition first. The case was opened by Judge Newton B. Vanderzee, Ex-Surrogate of Albany County, who represented the State Chiropractor Society. He asked that the bill be voted for the reason that it would exclude from business four thousand chiropractors who were treating one million people. Governor Smith asked him to point out anything in the law that would deprive the people of their right to take chiropractic treatment and said that if the Judge would show him such a provision, he would at once veto the bill.

The Judge replied by quoting the old part of the law in which the practice of medicine is de-

fined. The Governor called his attention to the fact that the section which he read was in the old law and not in the new one at all, and that whatever rights the chiropractors had at present remained untouched in the new law. Judge Vanderzee admitted that the chiropractors had no rights at present, but, on the contrary, were law-breakers and were doing illegal things. Governor Smith asked him to show him anything in the new bill that made the practice of chiropractic any more illegal than it is at present. The Judge was evidently confused and at loss for an answer, and then suddenly fainted and was taken from the room. He came back later, but took no further part in the proceedings, nor did any one else take up the thread of his argument.

The great argument of the chiropractic sympathizers was that the million patients of the cultists united in asking that the illegal practitioners be legalized. Governor Smith replied that he had received 6,000 chiropractic letters, all written in the same style and saying the same thing, indicating to him that they had not originated spontaneously with the writers, but had been instigated by the cultists and therefore would have little weight with him.

The argument was made that the bill had originated with the State Medical Society whose members were jealous of the chiropractors and wished to put them out of business from fear of their competition. Governor Smith replied that the originators of the bill were well-known to be two great Departments of the State Government, that of Education and Health, and that the leaders

in the Departments were actuated solely by public health motives

A representative of the Medical Alliance of New York City, and of the East Side Clinical Society, each of which had 300 members, opposed the bill on the ground that the rich doctors would evade the law of registration while the poor doctors would register because they could not afford to pay the fine for breaking the law. It was developed later that the two organizations for which the doctor claimed to speak were composed of practically the same individuals—one organization being a scientific body and the other a social club that met after the medical session.

Dr Lester Volk, a Brooklyn doctor who has been in the Assembly and Congress, brought up the matter of legality of license fees to be paid by the doctors for annual registration. The Governor replied that the principle of license fees had become firmly established in the State Government and that their legality was beyond dispute.

Dr Walter Ludlum, representing the Medical Society of the County of Kings, said that the doctors of Kings County wished to rid the state of quacks but they did not think that the proposed law would be effective for the following reasons:

1. Physio-therapy does not belong in the bill and would open their way for licensing of incompetent persons.

2. The waiver clause was too liberal in regard to the graduate of schools for which no standard was set. A "Course" might mean one single page of text.

3. There would be difficulty in finding doctors qualified by temperament, ability and finances to sit on the grievance committee without pay.

4. Annual registration would have little effect on the enforcement of the law.

Dr A J Hambrook, Chairman of the Legisla-

tive Committee of the County of Rensselaer, said that his County Society had met on the previous evening and voted to oppose the bill on the ground that it placed the additional duty of annual registration on already overburdened doctors. He also thought the Grievance Committee might exceed its powers and might use them to revoke license for trivial reasons.

Mrs E Daniel Lockwood, president of the Citizens League for Constitutional Freedom, said she represented five thousand members of the League which was only a week old and had been formed for the purpose of securing freedom of choice of medical advisors. She said she knew of many people who had been helped by chiropractors after physicians had given them up.

The opponents of the bill had occupied nearly two hours and all their major objections had been answered by the Governor himself.

Those in favor of the bill were introduced by Senator J Griswold Webb, of Dutchess County, who had sponsored the bill in the Senate. He said that the lobby against the bill had been unusually highly organized and unscrupulous.

The speakers in favor of the bill were Dr Wendel C Phillips, President of the American Medical Association, Dr Matthias Nicoll, Jr, State Commissioner of Health, Dr Louis I Harris, Commissioner of Health of New York City, Mr Homer Folks, Secretary of the State Charities Aid Association, Dr J Richard Kevin of Kings County, Past President of the State Medical Society, and Dr Augustus B Downing, Assistant Commissioner of Education, who will have charge of the enforcement of the law. The speakers were brief and confirmed the stand already taken by Governor Smith, who showed a remarkable grasp of the essential features of the bill and of its objects. The physicians of New York State are under deep obligations to the Governor for expressing their point of view.



THE DAILY PRESS



POPULAR SCIENCE

The latest discoveries in science have a popular appeal to the imagination as revealing the "wonders" of nature. They also have a practical appeal in the two lines of finance and of health. Great business houses, such as the General Electric and the Standard Oil Companies, maintain research laboratories which are primarily for business purposes, but their discoveries also bring untold benefits to the human race.

There are also laboratories endowed for research in the realms of pure science, with no thought of the immediate capitalization of their discoveries in finance or health. Medical laboratories connected with colleges and endowed foundations made deep researches into abstruse problems of bacteriology, comparative anatomy, and other fields, and record their observations for the benefit of workers who may wish to apply them in practical ways.

Applications of new scientific discoveries are often revealed almost by accident. The New York *Sun*, May 7th, has a popular article entitled "X-Ray Research on Interaction," which describes some of the research work done under the direction of Dr F K Reichmyer, Professor of Physics in the Cornell University, on the effects of radiant energy on matter. The article quotes the Professor as saying:

"The experiments thus have led to no practical results, and they were undertaken with no thought of their application in industry or elsewhere, except as they have a direct bearing on scientific theories.

"The problems we are studying, however, may have a practical effect upon the lives of future generations," he said. "For instance, if we knew absolutely what the effect of X-rays upon matter is, we might have somewhat more of a clue as to whether X-ray could cure cancer. We cannot anticipate the commercial or other problems of the future, but we can determine and formulate the laws of nature with the confident expectation that future generations will make use of these laws in solving their problems."

The possible applications of the researches at Cornell are compared with the practical uses of X-ray, which are largely medical. Dr Reichmyer says:

It is absolutely certain that if Roentgen had been interested in finding some way to assist surgeons in setting bones, he would never have been studying vacuum tubes and electricity. Yet out of his accidental discovery came this new tool of X-rays which has revolutionized certain phases of medical practice."

"Thus, the scientist never knows how close he may be to some mighty discovery. The laboratory experiments of today may suddenly divulge one of the great laws of Nature which heretofore had been hidden."

The New York *Tribune* of May 7th has an editorial on a new kind of sound waves which Professor R W Wood of Johns Hopkins University is studying, especially their effects in curing disease. The editorial describes briefly the air waves which produce sound—starting with a frequency of about 32 per second, and rising to 25,000 as the limit of the audibility of high pitched notes. But the scale of rapidity of vibrations continues with increasing frequency, and it is concerning these waves that the editorial says:

"These are the new super-sounds. Just as there are colors beyond the violet which the human eye cannot detect, so there are sounds so shrill that they do not register in the ear at all.

"Most of the work with these super-sounds has been done under water, for these sounds travel much better in water than they do in air. Sounds vibrating as rapidly as a million times a second have been produced, sent through water, and detected. Professor Wood's recent experiments have been carried out with vibrations of about 400,000 a second."

The reason for the editorial is evidently the limited use to which the waves have been put in the business world, and the mystic belief that they will be of great use in medicine. The editorial continues:

"Such waves have been used by both the American navy and by the French navy for underwater signalling and for measuring the depth of the ocean by means of echoes from the sea bottom. Otherwise they have had no practical applications until the recent experiments, still quite inconclusive, on their employment for medical purposes."

The action which the editorial writer ascribes to the super-sound waves is most beautiful in logic, but utterly unscientific. He says:

"The theory of the medical action of these waves is that they stimulate the circulation of the blood. It is well known that massage helps the circulation, and the exposure of super-sounds may be considered an extraordinarily rapid variety of massage. If a bath tub filled with water is set into supersonic (sic) vibration with Professor Wood's new waves, and if you dip your elbow into the vibrating water, you may consider that the joint will be pulled back and forth a trifle for each of the 400,000 times each second that the wave is vibrating."

The value of the editorial from the medical point of view is its optimism. The writer has faith in the physicians as he closes his editorial.

"Whether this procedure actually has remedial value or not, only repeated experiments by physicians will determine. In any event, it is probable that the new super-sound waves will find increasing uses somewhere. It is only recently that such waves have been produced easily and cheaply by special kinds of apparatus. And when any new physical agent becomes easy to produce and to manage, it usually is not long before science finds something worth while for it to do."

It is a good thing for the human race that people have confidence in their scientists, and reward the discoveries of the radio, the flying machine, and the X-ray instead of killing them for alleged conspiracies with Satan. It was unconceivable to the people a few hundred years ago that any one should use an extraordinary power for the benefit of his brethren rather than for their destruction, and so the people and the church, and the State repressed a knowledge of discoveries as threatening even the omnipotent Creator.

Today, the people have acquired the habit of believing any wild claim of alleged discoveries. Possibly their faith is over developed. Electricity, light, and other forms of vibrations have done the seemingly impossible—why should they not do still more impossible things? Keeley's violin vibrations of a generation ago have their counterpart in Abram Electronic theory today, and it will doubtless evolve into a resurrection of the old astrological belief in the influence of the distant stars which have been proved to bombard us with mysteriously potent waves through the ether.

But the people will also listen to doctors who go to the trouble to educate them. It does little good to denounce a theory as a fake. The people wish to believe in the universal beneficence of vibrations and electricity, and light, and other mysterious agents. Physicians may at least instruct the people regarding the great danger from the X-ray, the electric battery, and the ultra-violet light. People should know that anything which is potent for good is equally powerful for evil when used ignorantly.

MILK GRAFT IN NEW YORK CITY

Those who deplore the impossibility of enforcing the prohibition laws may find a parallel in the milk grafts in New York City. Bootleggers among milk dealers have developed a system of defying the laws and corrupting the inspectors which rival the methods of rum runners—and the public seems equally apathetic in

both instances. The graft seems to go on unchecked even while prosecutions are under way and confessions are made.

New York City has boasted of the purity of its milk supply, and rightly so. No suspicion is attached to the larger dealers whose names are household words, and whose plants are standards of cleanliness, efficiency, and completeness. But some of the smaller firms are not impelled with the high honesty of the large dealers, and detection of their frauds is extremely difficult. The standard of four per cent cream is as difficult to enforce as that of one-half per cent beer, and law officials have the same difficulties in both. There is a slight difference in favor of milk inspectors, for the courts seem to uphold them in the rights of entry, search, seizure, and immediate destruction of milk that is below grade, although the advocates of personal independence would have great difficulty in adjusting those procedures with their vehement denunciation of similar action regarding beer.

The New York *Sun* of May 7th records the action of the Board of Health in forbidding the sale of both skimmed milk and Grade C milk. The item says:

"The Board of Health regards the prohibition of the sale of skimmed milk and Grade C as two of the really big constructive steps taken in the move to safeguard the city's milk supply."

"There was a determined drive made on the part of some ice cream makers and bakers to prevent the adoption of the resolution against the sale of skimmed milk, which is used largely in baking and in ice cream."

"The Board, on advice of counsel, in anticipation of a constitutional question being raised, permitted the bringing into the city of skimmed milk in hermetically sealed containers of a capacity not to exceed one-half pint. This will make the commercial handling of the product impossible. A second provision in the new skimmed milk ordinance prohibits the possession of skimmed milk in any place where milk or cream is held or offered for sale. Its possession is held to be prima-facie evidence of an intent on the part of the possessor to adulterate milk."

Skimmed milk is a wholesome food product, and many persons have advocated its sale to the poor. However, like one-half per cent beer, its possession and sale have opened endless opportunities for graft, until the Board of Health has chosen the lesser of two evils and forbade its continuance in the market. Doubtless the bakers and others will ask, "Where are our personal liberties when we can't get either milk with one-half of one per cent cream, or beer with one-half of one per cent alcohol?"



BOOK REVIEWS



ATLAS OF DISEASES OF THE SKIN. By Prof G RIEHL of Vienna and Prof Leo V ZUMBUSCH of Munich, with Diagnostic and Therapeutic Notes by JOHN B LUDY, A.M., M.D., Col Med O.R.C., U S Army, Dermatologist, Lankenau and Methodist Hospitals, Philadelphia. Three parts. Part I, Infectious Diseases of the Skin, 69 colored illustrations, Part II, Inflammatory Diseases of the Skin, 65 colored illustrations, Part III, Atrophies, New Formations, Hypertrophies, 61 colored illustrations all taken from life. P Blakiston's Son & Co., Philadelphia, 1925

The material comprising this work has been prepared from the vast dermatological clinics of the authors, and are reproductions direct from life in colors, by a new process or Color Photo-engraving

Volume I covers the infectious diseases, parasitic diseases and those which clinically resemble them

Volume II contains the inflammatory diseases while Volume III takes in skin atrophies, new formations and hypertrophies

The American author, Dr Ludy has given the reader the advantage of his long training and expert knowledge in dermatology and the letter-press is most valuable, the diseases are clearly described, their diagnosis simplified and their treatment by the latest and best means fully explained. The colored plates are exceedingly excellent and well selected. This atlas forms a valuable addition to any professional library and a ready means of diagnosis for the general practitioner or specialist. It is quite the best thing of its kind in years

NATHAN T BEERS.

REPORTS OF THE ST ANDREW'S INSTITUTE FOR CLINICAL RESEARCH. St Andrew's Fife. Volume 2. Octavo of 190 pages, with illustrations. London, Humphrey Milford, New York, Oxford University Press, 1924. Cloth, \$3.00 (Oxford Medical Publications)

The second volume follows along the same principles of thoughtful and careful investigations, as did the wealth of material incorporated in the first volume. The nerve ending question as to the nature of symptoms, with their end results are dwelt upon, to the minutest detail. Sir James Mackenzie's studies embracing cellular and organic activity is included, enumerating their relation to symptoms in living pathology. Illustrative cases are reported of coronary disease and heart pain with an idea of learning definite prognostic information. Response to effort tests seemed to be overshadowed by the careful study of the patients' symptoms which were of greater moment in gauging prognosis.

A chapter is included, presenting the radiographic appearance of healthy infants' chests. The infants' ages range from six days to fifteen weeks. There is another chapter which gives very interesting conclusions on the experimental injections of Indian ink and carmine, and the lymphatic activities following absorption of foreign material and the tubercle bacillus. The articles are the product of observations and discussions of every member on the staff of the Institute, though individually written by one of its members.

A T MAYES

EVERYMAN'S INSURANCE A NECESSITY FOR HOME PROTECTION. By FRAZIER HOOD Ph.D., Litt.D., Professor Psychology, Davidson College. D Appleton and Co., New York, 1925. Price, \$1.50

This small volume is written for the buyer of insurance. It explains the elementary principles of insurance in all its different fields. After analyzing the various aspects of insurance such as the legal, social, economic

and mathematical, the author states that the true concept of insurance is "a device or society evolved through many centuries whereby economic losses are shared among a large number of individuals and the amount each must contribute to the common fund from which losses are to be made good is calculated to a mathematical nicety." Most of the space is devoted to the different forms of life insurance, but fire and marine, liability and compensation, theft and other forms of insurance are thoroughly covered.

L. S.

CHILD HYGIENE. By S JOSEPHINE BAKER, M.D., Dr P.H. Octavo of 534 pages. New York and London, Harper and Brothers, 1925. Cloth, \$5.00 (Harper's Public Health Series)

No one is better qualified to write a book of this character than Dr Baker, whose reputation is not only national but also international in her chosen field.

During her administration as head of the Bureau of Child Hygiene of the New York City Department of Health she not only acquired prestige but also a vast experience in this sphere of work.

In wealth of statistics, tables, and schemes of organization and all the phases of the administrative side of the Child Hygiene problem, it would seem that this volume is almost in a class by itself.

It is not so much a guide for the physician or the young mother but rather a work of greater scope which might be followed with great benefit by the public health official, the philanthropic organization, and by all concerned with the social service problems which are so weighty in hospital and civic circles.

It is, then, as a reference book that Dr Baker's production will find its chief use, and as such it must be accepted as an authoritative standard to be followed and quoted with full confidence.

WM HENRY DONNELLY

SIMPLIFYING MOTHERHOOD, Being a Handbook on the Care of the Baby During the First Year. By FRANK HOWARD RICHARDSON A.B., M.D., Brooklyn Regional Consultant Diseases Children, N Y State Department Health, Chief Nutrition Class, Brooklyn Hospital. Chapter on Breast Feeding. By ISAAC A ABT, M.D., Professor Diseases Children, Northwestern University Medical School, Chicago, Ill. Illustrated. G P Putnam's Sons, New York, 1925. Price, \$1.75

This small book is a strong plea for breast feeding to mothers as well as physicians.

In accordance with the author's conviction that nearly every mother can nurse her baby, this little volume carries to a successful conclusion all the practical experience at the command of its author to champion that conviction.

It discusses, in every day English, the whys and wherefores of breast nursing.

In this little book, in a very earnest and straight forward manner, it is the object to bring before the young mothers of the country the life saving value of breast nursing. Confusing statistics and other useless matter has been judiciously omitted.

This all important problem—"Infant feeding" is here being discussed fluently, interestingly and always practically. With the completion of its final chapter the reader can not fail to see the term "Infant feeding" spelled "Breast feeding", although exceptions should always be borne in mind.

In conclusion, the book is compact, instructive, all practical and deserves a place among other books on preventive medicine.

HARRY APPEL

TREATMENT OF KIDNEY DISEASES AND HIGH BLOOD PRESSURE. By FREDERICK M ALLEN, M D Part I Practical Manual for Physicians and Patients Octavo of 210 pages Morristown, N J, The Physiatrie Institute, 1925

The object of this book as stated in the preface, is to present the subject of renal vascular diseases in a simple form and parts of it are written with the idea that it may be placed in the hands of patients. The greater part of the book could only be understood by a physician.

Except for the influence of salt on hypertension, most of the ideas of the author are in accord with those generally held. Uraemia is believed to be the result, not of the specific toxicity of any one substance, but of the general low grade toxicity of all the retained nitrogenous substances.

Among the probable factors concerned in hypertension, two are given, in which the author believes, salt plays a large part. These are pressure of the surrounding tissues upon the capillaries as by fat or fluid turgor in invisible edema and swelling of the capillary endothelium due to intracellular edema. He says, "granting an infectious or toxic injury, it is noticeable that most of the further processes mentioned are such as might readily be caused by salt. Edema, turgor, contractions of cells and arteriolar spasm appear to the writer to be due in large measure, directly or indirectly to either the osmotic influence or chemical stimulation of sodium chloride."

In the treatment protein is allowed generally, to the extent of 30 to 80 grams daily depending upon the type of patient, attention being directed to presence of nitrogen retention. That a salt free diet for hypertension is the proper one, is the persistent contention of Allen. Directions are given for following his plan. He states that no one has experience upon which to base criticisms unless he can prove that the sodium chloride in the daily urine has been kept below 0.5 gram daily for a sufficient period of time. He states that he worked out this method independently and believed it new until a search of the literature revealed the observations of Ambard.

W E McCOLLUM

THE NERVOUS CHILD. By HECTOR CHARLES CAMERON M.A. MD, FRCP Third Edition, 12mo of 233 pages, with 8 illustrations London, Humphrey Milford, New York, Oxford University Press, 1925 Cloth, \$2.30 (Oxford Medical Publications)

This is a very excellent book, though the title hardly suggests the contents.

As the writer himself says in a preface, he could hardly call his book "The Nervousness of the Normal Child," but a suggestion of its contents might be conveyed by calling it "The Management of the Child to Avoid and Cure Nervousness" or "Training Parents to Train Their Children."

However, it is directed at parents who have, or wish to avoid having, what they would call a nervous child, and therefore the title probably serves well to reach its desired audience.

The writer is evidently a very sensible and experienced physician and guide for mothers. His manner of teaching and his very expressions in some cases remind us of what we should like to and perhaps do say ourselves. We are particularly impressed with his chapter where he describes one of the fundamental attributes of children as what he first calls a "love of power" and then modifies to describe as their enjoyment of occupying the center of the stage, this with reference to many things but particularly to their negativism and troubling their parents and nurses in refusal of food.

With great pleasure we have added the volume to our "Parents' Library"

W D L.

ULTRA-VIOLET RADIATION AND ACTINOTHERAPY. By ELEANOR H RUSSELL, M D, B S, Dunelm and W KERR RUSSELL, M D, B S, Dunelm Goyder Scholar University, Durham, 1914, late Surgeon, Special Military Surgical (Orthopaedic) Hospital, Newcastle, forewords by SIR OLIVER LODGE, F R S, D Sc, LL D and SYDNEY WALTON, C B E, M A, B Litt William Wood & Co New York and E & S Livingstone, Edinburgh, 1925 Price, \$3.50

A strictly down-to-the-minute account of the subject of ultra-violet radiation. It sets forth in a clear and interesting manner the latest as well as the earliest observations upon the relationship of light and health. Based as it is on an extensive clinical experience in a land of deficient sunlight, the work deals authoritatively with the conditions which are amenable to treatment by the means described. The technical detail and the exposition of the mechanical features necessary to an understanding of the subject are very clearly and accurately set forth. The work as a whole is to be highly recommended, and the information which it contains will be of great value to all who practice medicine.

JEROME WEISS

VITAL CAPACITY OF THE LUNGS. A Handbook for Clinicians and Others Interested in the Examination of the Heart and Lungs Both in Health and Disease. By J A MYERS M S, Ph D, M D Octavo of 140 pages Baltimore, Williams and Wilkins Company, 1925 Cloth, \$3.25

In this volume of 140 pages this diagnostic test is thoroughly described. The first chapter deals with the history of the study of vital capacity, credit being given to Hutchinson, who in 1846 published the results of a scientific investigation of the vital capacity in man. The next chapter describes those factors other than disease which influence the normal vital capacity, such as physical training, occupation, sex, age, obesity and race and nationality. Other chapters deal with the influence of disease upon the vital capacity of the lungs, limitations and uses of the test, measurements and instruments used and normal standards. A full bibliography is appended.

The author states in the chapter on the influence of disease that patients with vital capacities 15% or more below the normal should be most carefully examined for disease conditions interfering with the function of the heart or lungs. "Conditions of no present clinical significance which may reduce the vital capacity are old pleural adhesions, deformities of the thorax and ossification of the costal cartilages. Conditions of present clinical significance which reduce the vital capacity are cardiac disease, hyperthyroidism, emphysema, asthma, pleurisy, pneumothorax, pulmonary abscess, new growths, pneumonia and pulmonary tuberculosis."

W E McCOLLUM

PARASITOLOGY FOR MEDICAL STUDENTS. By ALEX MILLS KENNEDY, M D (Glas.) Octavo of 142 pages with illustrations London Humphrey Milford, New York, Oxford University Press, 1925 Cloth, \$3.00 (Oxford Medical Publications)

This little manual of 140 pages is an excellent book for students and physicians who desire a practical knowledge of parasites without going into the detail in which the parasitologist delights. The author describes insects, tape-worms, flukes, round worms, protozoa, spirochetes and fungi, the morbid conditions they cause and outlines prevention and treatment. The text is illustrated with numerous photographs of actual specimens.

E B SMITH

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HAY FEVER AND ASTHMA

Report of results in treating one hundred and fifty cases with High Frequency Electricity at the General Electric Plant at Schenectady during the season of 1925

By WILLIAM G. LEWIS, M.D.
ALBANY, N. Y.

IN May, 1918, in a paper read before this Society entitled, "Some Points in Electro-Therapeutics," there were included the satisfactory results that the writer had obtained in treating Rose Cold and Hay Fever with High Frequency Electricity over a period of a number of years. This method of treatment for these conditions has been continued with continued excellent results, both as to individual cases and as to the proportion of cases benefited.

In May of last year, through the courtesy of Dr. D. Glenn Smith, head of the medical and surgical departments of the General Electric Company's plant at Schenectady, permission was granted me to treat, during their working hours, as many as possible of the employees who suffered each season from Hay Fever. I wanted to prove or disprove by extensive trials the efficacy of the treatment I had been using. I also wanted to determine whether the results would be better if treatments were instituted some weeks before onset, as had been my custom in the past, or if it would be as well to await the first symptoms before beginning treatment.

From every person with whom I came in contact at "the Works" during the two and a half months when I spent over half of my time at the G. E. plant, I received most kindly consideration and herewith gratefully make acknowledgment to Dr. Smith, to his staff and to the various department heads.

* * * * *

The symptom-complex known as Hay Fever—having often as one of its symptoms an asthmatic condition—and Bronchial Asthma, as dissociated from Hay Fever, are so closely related as to causation and, from the writer's point of view, as to treatment, that they may well be considered together. Sajous, some years ago, applied the term "hyperaesthetic rhinitis" to Rose

Cold and Hay Fever. If we amend this to read "hyperaesthetic mucous membrane sensitiveness," we may use it as a designation for all conditions of the air passages where irritation of one kind or another is caused by pollens or other air-borne matters, which would include Rose Cold, Hay Fever and Asthma.

The best way not to get sick is to keep well—the best way not to have Hay Fever or Asthma is to have a normal condition of the mucosa of the air passages, and to attain this end, normal secretion of the epithelium of this mucosa is essential. In a large proportion of cases of Hay Fever, with and without Asthma—and of Asthma with and without Hay Fever treated, we have been able to bring about a normal secretion of the epithelium and a consequent normal condition of the mucosa, with complete or partial relief of symptoms. The foregoing is true as to results achieved, the remainder of the statement is purely speculative, based on theory and the evidence of results, which, in view of our limited knowledge regarding the secretions of the body generally, seems justified.

The sympathetic nerve system, controlling the secretory epithelium of the body, is our point of attack. By producing hyperemia over the ganglia of this nerve system we cause it to function normally instead of abnormally, to the end that the condition of the mucous membrane of the air passages may be changed from a state of being sensitive to pollens and other air-borne matters, to a state of normal resistance to such matters, as are the mucous membranes of so many of us who do not suffer from these conditions.

Mackenzie says that "the neurotic factor is due to abnormal excitability of the sympathetic system." Experience extending over a period of more than twenty-four years in the use of high frequency electricity has proven, in all classes of cases, that after producing a hyperemia over the sympathetic nerve system a sense of quietude is

* Read before the Medical Society of the County of Albany, March 9, 1925.

experienced by the patient, and the soporific effects are so marked in those who had been sleeping little or poorly, that it has become my practice to use this therapeutic measure for sleeplessness—in the absence of pain—before resorting to drugs

The great depression that so often accompanies Hay Fever even in the mildest cases, where the worst symptom is sneezing or running from the nose, is out of all proportion to the seriousness of the case and can be explained only by reason of the sympathetetic involvement

Three prime causes are named by writers as responsible for Asthma, Hay Fever and Rose Cold

- A An organic disorder of the mucosa
- B General nervous debility
- C An external irritant

All three of these can be summed up into one cause—namely, a *functional* disorder of the mucosa due to abnormal functioning of the sympathetic. This disfunctioning of the sympathetic would account for the “general nervous debility”, also for the so-called “organic disorder of the mucosa”—and correcting this disfunctioning of the sympathetic, as we are able to do by this method, will remove these two causes and the heretofore causative pollens and other air-borne matters would no longer prove irritating

As early as 1833 Roch and Sanson, in their *Pathologie*, said in regard to Asthma “It is exaggerated and perhaps produced by anything that tends to increase the irritability of the nervous system”

Jones says in the *Lancet* (Feb 28, 1920) “Asthma is a respiratory symptom that occurs in bronchitis, heart disease, renal disease and alimentary disease—and also as a pure neurosis”

Osler says “All writers agree that there is, in a majority of cases of bronchial asthma, a strong neurotic element. Many regard it as a neurosis in which, according to one view, spasm of the bronchial muscles, according to others, turgescence of the mucosa, results from disturbed innervation, pneumogastric or vasomotor” And —“the so-called Hay Fever is an affection which has many resemblances to bronchial asthma, with which the attacks may alternate”

Butler says “Some regard Asthma as a pure neurosis—a spasm of the bronchial muscles—others as a neurotic hyperemia and swelling of the bronchial mucosa”

Caille says—and we are so using it here—“The term Asthma should be employed only in connection with bronchial asthma, which may be defined as a vasomotor turgescence of the bronchial mucosa, although the pathology of the disease is unsettled” And under treatment he says “The neurotic element in Asthma must not be overlooked”

In making the statement that disfunctioning of the sympathetic is the cause of Bronchial Asthma and Hay Fever, we are going a step further than

the above quoted writers, and in treating over the course of the sympathetic nerve and its ganglia, and by means of high frequency electricity producing hyperemia, in an effort to cause that system to function normally, we are approaching these conditions in a sane, logical manner. The results of such treatment justify the statement that, although we may not know the primary cause of the disfunctioning of the sympathetic, we have learned that treating over this area has brought definite benefit to a very large proportion of cases of Asthma and Hay Fever so treated

The apparatus employed by the writer consists of an eight-inch Rhumkorff coil—such as was used in the first X-Ray machines—in combination with condensers, solenoid, spark gap and interrupter, the latter preferably of the Wehnalt type. When using this combination with an alternating current a rectifier is essential. This combination is probably the oldest form of high-frequency-current-producing-apparatus for therapeutic uses extant, and to my mind, is still the best for surface application

I have made many modifications to my original apparatus and to others that I have had occasion to fit out and use. One has been to adjust the capacity of the condensers to the particular current used. Another, when using the alternating current—as we have here in Albany—has been to increase the size of the Noden valve and adjust the relation of the elements. And in the Wehnalt interrupter, to replace the porcelain tube with a tube of fused quartz. The porcelain tube must be replaced frequently—about every three months—because of the cupping of the end, due to the heat generated and the disruptive effects of the continuous spark on the porcelain, resulting in irregularity of the current. The tube of fused quartz, being unaffected by heat or acid or spark, retains its original size and shape and should last indefinitely

I have been using this type of apparatus for many years and long ago reached the conclusion that it required more care and attention than a sick baby. That I was not discouraged because of this was due to the fact that I have been able personally to make my own repairs, and to construct new parts to replace those that have become worn out. Some years ago I was asked by one of the firm from whom I had secured my first piece of apparatus as to who kept it in working order, adding that in New York, where he was located, it was their custom, about every three months, to send one of their staff to repair and rehabilitate apparatuses of this type that were being used in New York City. I am relating these details in an effort to show at least one reason why this type of apparatus has fallen into disfavor both with physicians and with those who make and market electro-therapeutic equipment

The high frequency apparatus in general use to-day is of the step-up-transformer type. We may dismiss as unworthy of our attention the small so-called "violet ray" machines. Their therapeutic usefulness is limited to the one operation of fulguration and of this, only the most superficial kind. Their efficacy as compared with a real high-frequency-producing-apparatus may be compared with the soporific effect of 1-500th grain of Morphia as compared to the effects of a dose of $\frac{1}{4}$ of a gram.

For some purposes—diathermy, auto-condensation, fulguration, and in the newer type, for operative procedures—the apparatus of the step-up-transformer type is the instrument of choice. I have used a great many makes of this type, but have still to find an apparatus of the step-up-transformer type that delivers a current that is suitable for repeated surface applications, for the reason that a dermatitis is invariably produced over the treated area. When necessary I have, with the type of apparatus I use, produced a hyperemia over a given area three times daily for periods of three and four days with no irritation of the skin, merely the desired hyperemia.

The present day popularity of diathermy, and the reverse of surface application of high frequency electricity is due, in my opinion, to the foregoing facts. The patient, as a rule, resents treatment with a vacuum electrode when energized by an apparatus of the step-up-transformer type of sufficient capacity to deliver a therapeutically active current. During the past twelve years or more I have reported various conditions that I have treated with good effect with high frequency electricity, but other operators have failed to get similar results and have, perhaps, thought that I had exaggerated the results. It is more than likely that those who treated cases similar to those that I had reported used apparatus of the step-up-transformer type and their patients would not tolerate enough of this current, or treatment, to bring about the desired results.

There is not, as far as I have been able to ascertain, any exact method of measuring and comparing, as to therapeutic effect, the currents generated by these two types of apparatuses; and no method by which they might be brought to a point where the local effects would be identical. An expert recently made the remark that even if the two apparatuses did measure-up the same, there might still be differences in the currents delivered that were beyond the capacity of their instruments to determine.

In treating Hay Fever and Asthma—as in all conditions—the patient's general health and elimination should be looked into. Due to the fact that all who seek employment at the G. E. works are submitted to a rigid physical examination before being engaged, our preliminary examination of those applying for treatment dis-

closed no organic lesions. The only condition found worthy of our attention were occasional cases of auto-intoxication.

At the hospital of the G. E. plant—Building 45—a room was assigned to me, and the services of a technical (electro-therapeutic) assistant and secretary were placed at my disposal. After a very few days both of these assistants became as much interested in the work as I was and did everything in their power to see that all was done in the matter of treating patients and of keeping records that could be done to add to the success of the work.

In the beginning we had one apparatus and were able to treat between thirty and thirty-five patients during the working day, but very soon we found that our facilities would not meet the demand and a second apparatus was installed, the assistant using one and I the other, and we were kept busy throughout the working day.

On July 6th, questionnaires were distributed in the various buildings of the Works, in which the following information was asked for:

For those who have suffered from Hay Fever

Fill out the following form and hand same to

Name . . . Age . . . Sex . . .
Single . . . Married . . . Widowed . . .
(Strike out those not applying to you)

Address . . .
Employed in Shop No . . .
Employment . . .

For how many years have you had Hay Fever?

On or about what date do you have the first symptom?

What is the first symptom?

What is your most prominent or annoying symptom?

Make an (x) before any of the following symptoms that you may have had in the past during your attack

() Sneezing () Cough () Itching of eyes
() Itching of ears () Asthma () Head-ache () Indigestion

Any other symptom or symptoms? If so, mention them

How much time did you lose, because of your Hay Fever in 1924? . . . In 1923? . . .
In 1922? . . .

To what extent, if at all, was your work (efficiency) affected by reason of your Hay Fever while you were at work?

() Not at all () Very little () Considerably () %

Do you ever have Asthma outside of the Hay Fever season?

What is the condition of your health in general?

When does your attack end? . . .

Many were returned to us, and on July 16th we began treating as many as possible, selecting those who had had Hay Fever for the greatest number of years and those who had mentioned Asthma as one of their symptoms. It was our custom to assign to each patient a definite time to report for treatment and I am glad to say that with few exceptions these appointments were kept. As time passed and the timid ones discovered that those who had come for treatment had been able to return to their jobs and had been "treated" and not "electrocuted"—and it was a source of great surprise to see how fearful were these workers at and around electricity at this, to them, a new form of electricity—applications for treatment poured in on us and soon after the beginning of the Hay Fever season—August 15th—we were besieged with applicants for treatment, who had seen or thought they saw improvement in the condition of their fellow sufferers who had been having treatments. Because of our limited facilities we were compelled to select for treatment only those cases that gave a history of, or exhibited, the most severe symptoms, and this meant that cases having Asthma as one of the symptoms were to be considered first.

There were many applications for treatment from sufferers from Rose Cold who had already passed through their attack as well as from many who had ordinary "colds" or thought they had Hay Fever. Treatment was not given in any case where there was not a definite history of Hay Fever in previous years.

Treatments were given, as a general rule, three times a week, every second day, Sundays not being considered. The exceptions were the cases that presented themselves after the onset, where the asthmatic condition was severe. These cases we treated daily until this condition was relieved, usually by the end of the first week.

Treatment consisted of producing, by means of high frequency electricity—and I must again repeat, generated by a proper apparatus—hyperemia along the mid back, from the nape of the neck to the coccyx, and extending from three to five inches laterally, according to the size (bulk) of the patient. And according to the toleration of the patient, we used either a vacuum or conductor-filled electrode, the latter producing a more intense hyperemia in a shorter time.

We started our work on July 16th and continued until October 1st, administering during that time 2,589 treatments to approximately 200 patients. The discrepancy between the above number and the total on which this report is based is due to the fact that some were treated for conditions other than Hay Fever.

On our busiest day—August 26th—we saw and treated 77 patients.

As complete a record as possible was kept, and I wish to make a report of 131 cases treated, who all received more than six treatments. Of the cases that received six or less treatments I shall make a supplementary report.

The record that I shall present is compiled from

- 1 The questionnaire
- 2 A record that was kept during the course of treatment—a short history, confirming the answers in the questionnaire, number of treatments given, and remarks
- 3 Letters from the patients and their relatives and friends, received in answer to the following letters, which were sent to every patient on October 1st

Hospital Building 45,
General Electric Company

October 1, 1925

My dear ———

Will you be good enough to tell me, using the other side of this paper for that purpose, how your Hay Fever was this year as compared with former years? If you will go into detail, mentioning each symptom and stating whether it was worse, better or the same as in previous years, it would aid me greatly in preparing my report of the work we have been doing here this season.

Also, will you give the enclosed to the person who has been with you most for the past few years and ask that person to write his or her opinion of your condition this past season as compared with former seasons?

Thanking you for this information, I am,

Very truly,
(Enclosure)

Please write on the other side of this sheet your opinion of the condition of M
your as to Hay Fever during the past season as compared with previous seasons.

This information from a source other than the patient will greatly aid us in preparing our records, and we thank you for supplying same.

Yours truly,

To the first letters sent out we received about sixty replies. Later a duplicate letter was sent to those who had not responded to the first and from this lot we received about fifty answers. Of these, 99 are included in this report, leaving 32 from whom we have not heard directly.

It was my custom to be at the Works every Monday, Wednesday and Friday from 9 until 4, on the other week-days my assistant treated as many cases as possible. Because of the fact that the plant closed at noon on Saturday, I

found it necessary to go there on Saturday mornings as well, so that all patients could get the three treatments a week. There were many of the patients whom I saw so seldom that it was impossible for me to form an estimate of their condition from the records, and in order correctly—or as nearly correctly as possible—to arrive at the condition of these 32 patients who had not responded to our letters, my two assistants of last summer came to my office recently and together we went over the cards and questionnaires of these cases. I can conscientiously say that, if any errors have been made, they have been on the side of conservativeness.

The following table will show the results in the 131 cases treated, viz

25 were improved from 90 to 100%
33 were improved from 70 to 80%
28 were improved from 50 to 60%
27 were improved from 25 to 40%
6 were improved under 25%
12 showed no improvement.

For the purpose of determining whether it were better to begin treatment a month prior to the usual onset—as has been my custom—or at a later time—or to wait until after the onset, I have divided the cases into three groups, according to the time when treatment was begun, as indicated in the accompanying chart

CHART OF 131 CASES OF HAY FEVER TREATED AT THE G. E. PLANT, SCHENECTADY 1925

% of Improvement	90 to 100	70 to 80	50 to 60	25 to 40	Under 25	No Imp	Totals
Group A Treatment begun between July 16 and 31	15	13	6	13	2	5	54
% of Improvement	27.4	5	11	24	33.5	9.1	5
Group B Treatment begun between August 1 and 31	3	8	6	8		5	30
% of Improvement	10	26.3	5	20	26.2	3	16
Group C Treatment begun after August 15	7	12	16	6	4	2	47
% of Improvement	15	25.1	2	34	12.3	4	51.2
TOTAL	25	33	28	27	6	12	131
% of Improvement of all cases treated	19	25	21.1	3	20.2	3	41.2

It is possible that our total of cases is not large enough to draw final conclusions on this point, but from this number of cases we see that the greatest number of high percentage improvement occurs in Group A, where treatment was begun between July 16th and 31st, although this same group shows a larger per-

centage of non-improved cases than Group C, where treatment was begun after the onset. We shall, however, continue to advise the beginning of treatment on or about July 15th, until a record of a much greater number of cases is available and proves that instituting treatment at a later date is as advisable or more desirable.

Of the foregoing 131 cases, 49 reported Asthma as one of their symptoms. Of these, 47 showed marked improvement, 2, no improvement at all, as follows

15 were improved from 90 to 100%
12 were improved from 70 to 80%
8 were improved from 50 to 60%
12 were improved from 25 to 40%
2 showed no improvement.

CHART OF 49 CASES OF HAY FEVER HAVING ASTHMA AS ONE OF THE SYMPTOMS

% of Improvement	90 to 100	70 to 80	50 to 60	25 to 40	Under 25	No Imp	Totals
Cases with Asthma as a symptom	15	12	8	12		2	49
% of Improvement	30.3	4	24.1	2	16.1	4	24.1
Asthma cases, showing Group and % of Imp							
Group A	10	3	3	7		1	24
Group B	1	7	3	3		1	15
Group C	4	2	2	2			10

Cases of Bronchial Asthma without Hay Fever have responded to this form of treatment in about the same proportion as have the cases cited in this record, where the Asthma was one of the symptoms of Hay Fever. Repeatedly in Asthma with and without Hay Fever, having examined a patient immediately before giving a treatment and having found rales throughout the chest, I have found after a single treatment a very marked lessening of the chest sounds, with great relief to the patient.

Of the cases treated that have not been included in the groups reported because of insufficient number of treatments there are about twenty, seven have reported a better condition this year than in previous years, as follows

Two who had three treatments each, were 90% better

Three, who had respectively 2, 3 and 4 treatments were 50% better

Two, who had respectively 3 and 4 treatments were 25% better

Seven reported "no improvement", one had had 4 treatments, one had had 5 treatments and five had had 6 treatments each

Of these seven, one discontinued because our room was too draughty. One reported "no improvement", but his sister wrote that she had

noted a betterment in his condition after each treatment. Another told us on his last visit to us that he was better, his letter, however, said that he had shown no improvement, but he added that he "caught a cold" just after his last treatment. Half a dozen more cases were treated a few times each, of which we have no record beyond the fact of their having been treated.

Realizing the scepticism that is likely to be shown towards a form of treatment that, excepting in the hands of the writer, is new and untried, I have brought with me, for your inspection, the "documents in the case." I have, in three volumes, arranged according to the percentage of improvement, the questionnaires, the cards that were used as our records, and all let-

ters that were received from the patients and their relatives and friends.

CONCLUSIONS

Of all the cases of Hay Fever and Asthma treated, 91% showed satisfactory improvement.

Of the cases reporting Asthma as one of the symptoms, 95% were markedly improved.

From our experience of the past we shall expect the cases that were benefited last season to be as well or better during the coming and subsequent years, and that a large proportion of those who were not benefited will show some improvement during the coming season.

That results have justified our previous estimate of the efficacy of High Frequency Electricity in the treatment of Hay Fever and Asthma.

PAINFUL DISABILITIES OF THE FORE FOOT (METATARSALGIA)

By DONALD E. McKENNA, M.D., F.A.C.S.
BROOKLYN

METATARSALGIA is an inclusive term applied to a bizarre group of conditions which give pain in the fore foot. Anatomically it applies to affection of the metatarsals, phalanges and their contiguous soft parts. This is a broad interpretation of the term, but unless so considered, clinical confusion and diagnostic error ensues. The diagnosis of static metatarsalgia should be arrived at by a process of exclusion—which, in turn, necessitates an acquaintance with all of the possibilities pertinent to fore foot pain.

This paper has for its purpose the grouping of these possibilities, together with an enumeration of the distinctive features relative to each. Classification is most readily accomplished by the division of the affections into—(1) a local or focal group and (2) a general or systemic group. In the local group have been included

- 1—Hammer toe
- 2—Overlapping fifth toe
- 3—Morton's toe.
- 4—Ring-worm
- 5—Chilblain or pernio
- 6—Hallux rigidus
- 7—Hallux valgus
- 8—Fractured sesamoid bones
- 9—Papillomata
- 10—Deutschlander's disease
- 11—Juvenile deforming metatarsophalangeal osteo chondritis
- 12—Fracture of the metatarsals
- 13—Claw foot

- 14—Arthritic metatarsalgia (a) infectious, and (b) toxic
- 15—Static metatarsalgia.

The following represent the general conditions

- 1—Raynaud's disease.
- 2—Thrombo angitis obliterans
- 3—Erythromelalgia—Wier Mitchell's disease
- 4—Arterio sclerosis
- 5—Diabetes
- 6—Gout
- 7—Mal-perforant Perforating ulcer
- 8—Tuberculous osteitis
- 9—Syphilitic periostitis

We are not so intimately concerned with this latter, the systemic group—just a few remarks pertinent to the essential characteristics will be sufficient to identify each.

Raynaud's Disease is an affection of the blood vessels, occurring most frequently in emotional or neurotic women between the ages of 18 and 30. Both feet are involved. The onset is sudden, pain is severe, usually confined to the fore foot and more intense during cold weather. The color of the skin, which fails to disappear when the foot is elevated, is dusky red and while the toes are cold, the *dorsalis pedis* artery pulsates. Frequently the fingers and occasionally the tip of the nose present similar vascular phenomena. X-ray is distinctive and diagnostic. It shows atrophy of the terminal phalanges of the toes and in advanced stages—actual disappearance of large portions of these bones.

* From the Department of Surgery, Orthopedic Division, of the Brooklyn Hospital.

Thrombo Angutis Obliterans (Russian Sickness, so-called) is also a blood-vessel disease, characterized by painful, cold, swollen toes, wax-like in appearance. Ninety-nine per cent of the cases occur in Polish, Galician or Russian Hebrews, young males between the ages of 20 and 30, being most frequently affected.

In contrast to Raynaud's disease, as a rule but one foot is involved—and while the parts are red when dependant, they become white when elevated. Pain is often worse at night, walking sometimes relieves it. The most constant symptom is disappearance of pulsation of the dorsalis pedis artery. Of course, when gangrene appears, the condition is too evident to warrant detailed remarks.

show the sclerosed (calcified) vessel. Gangrene is a later or terminal symptom.

Occasionally the initial symptom of diabetes is pain in the forefoot and toes, quickly followed by local death of one or more of the digits, often the fifth. A urine analysis will eliminate the confusion, sugar being found in the specimen.

Only a word about *gout*. The acute type is accompanied by a fever and excruciating pain in the region of the great toe. Other joints are simultaneously involved and the patient of his own volition is bed-ridden. The chronic type is the one with which we are concerned. It is infrequent in this country—common in England—associated with beer-drinking and over-indulgence in food, characterized by recurring dis-

	RAYNAUD'S DISEASE	THROMBO ANGITIS	ERYTHROMELALGIA
1—Sex	Emotional female	Male Hebrew	Male
2—Age	18 to 30	20 to 30	20 to 40
3—Involvement	Bilateral	Unilateral	Bilateral
4—Pain	Intermittent	Worse at night	Constant
5—Redness	Dusky	Bluish	Bright
6—Effect of Elevation	Color unchanged	Becomes white	Color unchanged Pain disappears
7—Effect of cold weather	Worse	Worse	Better
8—Surface Temperature	Decreased (cold)	Decreased (cold)	Increased (hot)
9—Pulsation of Dorsal Artery	Diminished but present	Absent	Full and bounding
10—X-ray	Atrophy of phalanges	Negative	Negative

Erythromelalgia—called oftentimes, "Wier Mitchell's disease" after the man who first described it—is a rare affection of the fore foot, essentially chronic, characterized by pain, redness and swelling. The pain is frequently likened to "Fire in the Skin"—the torture, at times, becoming unbearable. Men between the 20th and 40th years are most frequently affected. It differs from "Russian Sickness" in that exertion such as walking increases, rather than relieves, the pain, the parts are hot, not cold, the swelling is greater and the toes do not "blanch" when elevated. In contrast to Raynaud's disease, heat aggravates the pain. The redness is bright—not dusky and the X-ray shows no bone changes in the phalanges. The essential difference is the presence in erythromelalgia of a full bounding pulse in the dorsal artery.

Arterio Sclerosis—is a distinct and separate disease of the blood-vessels, not infrequently beginning in the arteries of the extremities. Pain in the fore foot is occasionally the initial symptom, usually involving the second toe. It is most common in people over 50 years of age. Coldness and blanching of the affected parts is an early sign. Blueness of the foot and a feebly pulsating dorsal artery in a patient over 50 should put one on their guard. An X-ray will

trengthen pain in the region of the great toe joint. Local heat and tenderness with the palpation of gritty, irregular deposits about the joint, and the finding of tophi (small shot-like nodules on the pinna of the ears) completes the picture.

Perforating ulcer "mal-perforant" is a symptom-complex, described by Nelaton in 1852. It occurs on the sole of the foot at the ball of the great and little toe. A marked callous is noted at the site of predilection, the center of the horny skin layers become softened, peel off, producing a crater, the base of which is covered with sluggish granulation tissue, showing no tendency to heal. It is painless unless secondary infection occurs. An X-ray in the well-developed phase shows osteitis of the shaft of the metatarsal bone nearest the ulcer. This is not a disease entity, but a syndrome, significant of disease of the central nervous system. It may be due to locomotor ataxia, tumors of the spinal cord, etc. Local treatment is futile.

Tuberculosis and *syphilis* do produce lesions in the metatarsal region, tuberculosis causing an osteitis of the tarsal bones—usually in children—while syphilis produces a periostitis usually in adults. Other evidences of these diseases are so marked that the local foot condition is but a part

of the general picture. Mention of them is made merely for the sake of completeness.

Your attention is now invited to a more intensive consideration of the local or focal group. *Hammer toe* may be congenital and even hereditary, but is usually acquired. The characteristic deformity is flexion of the terminal and extension of the proximal phalanx with the formation of a corn on the tip of the toe and a small bursa on the dorsal surface of the projecting knuckle. The condition as a rule is bilateral, the second toe usually being the offender, due to the fact that it is the longest digit and is subjected to constant lateral compression. The earlier the congenital type is treated the better, begin when the child is a few months old if possible—a little metal splint to which the parts are strapped or bandaged should be worn constantly for two to four months, after which the parent should continue stretching the parts three to four times each day. When the child starts to walk—strap the toe by placing a strip of adhesive under the distal phalanx and a second strip over the proximal joint and reapply as often as necessary. Institute rest periods when the skin shows signs of irritation, and during this time resort to a firmly bandaged splint or, if the condition is not too severe, rely on manipulation for a week or 10 days before resorting to re-straping. Of course, a roomy shoe with a soft tip is indicated and such efforts continue so long as a remnant of the deformity persists. If this is not done, recurrence is inevitable.

In the acquired type which occurs in adults—a faulty shoe is always the offender. Proper footwear affords the greatest relief from suffering. Denudation of the callosities is indicated. Moleskin plaster over the painful pressure parts affords relief. In the fixed types of long standing, nothing short of resection of the joint and complete straightening of the toe by the removal of a sufficient bone wedge from both phalanges will affect a cure.

Overlapping fifth toes are congenital defects. They are frequently overlooked in childhood and youth, but the deformity, and consequently the symptom of compression and resultant pain, increasing with age, accounts for the frequency of the assertion by the patient that the condition has been recently acquired. It is not to be denied that a tight shoe may not be the exciting cause, for it often is, but the tendency is undoubtedly congenital. We know of no shoe, nor type of splint which will materially affect correction. If symptoms are present, amputation is the cure.

Morton's toe was first described by Thomas G. Morton in 1876, as a peculiar and painful affection of the fourth metatarsophalangeal joint. It is a clinical entity and certainly a troublesome one to treat.

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which comes on in attacks—at times aggravated by walking, but not necessarily associated with weight-bearing. Not infrequently its occurrence is relevant to the cramped quarters of theatre-seats, but in all events, muscle strain is the basis of an attack. Relief is attained by removal of the shoe and manipulation of the parts. One patient attained relief from no other measure than the immersion of the feet in a cold bath, relief being accounted for in this instance by the muscle relaxation which followed the circulatory shock.

The cause of this characteristic lance-like pain was shown by Sir Robert Jones in 1892 to be caused by the compression of the inter-digital nerve by the subluxed metatarsal head. Relaxation of the plantar fascia is essential to the production of the symptom. The condition is always associated with weakness of the long arch. Any treatment short of definite support to the longitudinal arch, lacks efficiency. Local strapping, such as is afforded by adhesive or the elastic compression of commercial devices, are palliative. Metal supports are poorly tolerated. We prefer a felt pad, supporting both the long and transverse arch, fixed to the foot by adhesive, and changed at weekly intervals, until symptoms have subsided. Relief may not attend one's early efforts, but once attained, a support in the form of a leather covered rubber and metal insole, the exact reduplication of the pad which gives relief, will promote continued improvement. The one important point about this type of disability upon which we insist, is strict co-operation by the patient. If they are not willing to devote a month or six weeks to the experimental phase while arriving at the exact contour for the support which will give the maximum relief, it is best to decline the undertaking. A word about custom-made shoes in this affliction, none have given satisfaction in our hands, and it is an ill-mannered method of side-stepping the issue. The boot-maker will stick to his last if given an opportunity. We should not force such a problem upon him unless we are prepared to supervise his craftsmanship in detail. Occasionally an inner sole with a raise of leather exactly behind the head of the involved metatarsal will suffice, but its effectiveness is fraught with so many difficulties that we always elect the routine above elucidated.

Ring-worm (epidermo-phytosis) occurs about the base of the toes. It is due to a fungus growth, and the source of infection is by direct contact. It can occur through the use of public shower-baths, the promiscuous laundering of socks of an infected individual with the garments of a non-infected person, from the family tub, exchange of foot-wear and the likes. It is most common during the summer months, warmth and moisture encouraging growth.

Breaking of the skin about the basis of the toe, with formation of vesicles (small blisters), itch-

ing of the parts and pain when infection ensues, comprise the clinical picture. Proper treatment consists in breaking the vesicles, the use of salicylic paste as a peeling agent in strengths of 12 to 100 per cent, depending upon the age of the patient, Whitfield's ointment, which consists of 15 grains of salicylic acid and 30 grains of benzoic acid in an ounce of petrolatum anointed on the parts twice daily is a specific. To be sure the patient should be cautioned against bathing in common quarters, and advised to wear white, clean socks until all irritation has disappeared.

Chilblain or pernio is a recurrent affection of one or more toes during cold weather, following an initial, severe exposure of the parts during a previous season. It is infrequent in this locality, due to relatively comfortable living quarters, and the mildness of our winters. Tingling, itching and burning of the toes occur in attacks precipitated by overexercise or sudden exposure of the feet to heat, such as their close approximation to a radiator or open grate. The symptoms are caused by local congestion, frequent attacks of which produce crops of vesicles, these vesicles rupture and expose ulcers which in rare instances slough (Da Costa). Localized, painful swelling of the toes with seasonal periodicity in a young individual should always excite our inquiry into the more intimate history of possible frost-bite. The application of one-half strength iodine ointment is probably the most efficacious measure at our disposal for the relief of pain (Hare). These patients should be instructed to wear comfortable foot-dress and woolen socks throughout the cold season, warm foot-baths at night and the use of a hot-water bag, or better, an electric pad during sleeping hours and cautioned to avoid reexposure to extreme cold.

Hallux rigidus—(stiff great toe joint) is infrequently encountered in civil practice except in the elderly. In military life it is a real factor in foot disabilities—most common in the English army—and provoked, most probably by the wearing of brogans—an inflexible type of shoe—excessive mechanical strain being constantly thrust upon the joint producing fatigue, muscle-spasm and fixation. Manipulation under anesthesia to break up the adhesions with the additional precaution against recurrence by the use of a metatarsal cleat when weight-bearing is resumed, is usually sufficient.

The type with which we, as civilian practitioners, are confronted, is usually in the elderly, the pronated foot is its precursor, excessive strain and its resultant mechanical irritation follows faulty weight-bearing. An underlying tendency to arthritis succeeds in producing rigidity. This type does poorly when operated. Local heat, such as baking or more recently the use of diathermy, is soothing—a soft box shoe with a metatarsal cleat aids in palliation. Persistent, gentle massage and stretching may occasionally accom-

plish restitution of motion sufficient to occasion improved function. It must be discontinued upon the slightest indication of joint reaction (heat, redness or pain about the parts). Forcible manipulation on account of the concomitant arthritis is contra-indicated—for in breaking down the existing barrier to motion, whether they be adhesions or bony outgrowths, new material for the production of greater rigidity is created.

Hallux valgus—is more properly a separate subject. All agree that the deformity follows the persistent use of faulty foot-wear, particularly the pointed toe variety, and yet when we reflect upon the number of people who remain free from this deformity notwithstanding the fact that they subject their feet to an identical type of abuse, there must be some dependent or underlying cause. Painter feels that abnormal proportion of the different segments of the foot, perhaps an abnormally long metatarsal—bringing the metatarsophalangeal joint too far forward in a shoe that might otherwise be of appropriate size for the foot, is the deciding element. Lovett and Jones believe that the constant pull of the flexor hallucis holds the toe, which has previously been deflected outward by the boot, in the erroneous position, and lateral displacement of the tendon results from constant "bow-string" action on the digit. Truslow recently called attention to a few cases in which he feels that the deformity was produced by mal-development of the articular facets of the tarsals, principally the internal cuneiform and scaphoid (navicular) causing the error by virtue of the distorted relation between the proximal head of the first metatarsal and cuneiform.

Be the underlying and exciting causes what they may, the pertinent anatomical irregularities in the fully developed phase are identical. The forefoot is increased in width, there is subluxation of the phalanx on the metatarsal head, rotation of the first metatarsal on its long axis, outward deflection of the four lesser toes, often accompanied by flexion, the appearance of a bony sub-bursal mass on the inner side of the joint, which, by the by, is more often the result of an unduly exposed metatarsal head together with the fact that rotation of the shaft throws into relief the normally less regular inferior surface, than it is an expression of true hypertrophy or bony overgrowth.

Joint changes consist of abnormal relaxation of the internal lateral ligament and inner half of the capsule with a corresponding contraction of the external lateral ligament and external half of the capsule. The articular cartilages in uncomplicated cases are normal. Muscle balance is distorted, the flexor and extensor hallucis tendons are both displaced to the outer side of the joint and through their bow-string action tend to perpetuate the deformity. The adductor hallucis becomes contracted and the abductor its normal antagonist loses its power by virtue of its dis-

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Morton's toe was first described by Thomas G. Morton in 1876, as a peculiar and painful affection of the fourth metatarsophalangeal joint. It is a clinical entity and certainly a troublesome one to treat.

The affection is of one foot, primarily, but frequently develops into a bilateral complaint. It is characterized by sharp, well-localized pain

which comes on in attacks—at times aggravated by walking, but not necessarily associated with weight-bearing. Not infrequently its occurrence is relevant to the cramped quarters of theatre-seats, but in all events, muscle strain is the basis of an attack. Relief is attained by removal of the shoe and manipulation of the parts. One patient attained relief from no other measure than the immersion of the feet in a cold bath, relief being accounted for in this instance by the muscle relaxation which followed the circulatory shock.

The cause of this characteristic lance-like pain was shown by Sir Robert Jones in 1892 to be caused by the compression of the inter-digital nerve by the subluxed metatarsal head. Relaxation of the plantar fascia is essential to the production of the symptom. The condition is always associated with weakness of the long arch. Any treatment short of definite support to the longitudinal arch, lacks efficiency. Local strapping, such as is afforded by adhesive or the elastic compression of commercial devices, are palliative. Metal supports are poorly tolerated. We prefer a felt pad, supporting both the long and transverse arch, fixed to the foot by adhesive, and changed at weekly intervals, until symptoms have subsided. Relief may not attend one's early efforts, but once attained, a support in the form of a leather covered rubber and metal insole, the exact reduplication of the pad which gives relief, will promote continued improvement. The one important point about this type of disability upon which we insist, is strict co-operation by the patient. If they are not willing to devote a month or six weeks to the experimental phase while arriving at the exact contour for the support which will give the maximum relief, it is best to decline the undertaking. A word about custom-made shoes in this affliction, none have given satisfaction in our hands, and it is an ill-mannered method of side-stepping the issue. The boot-maker will stick to his last if given an opportunity. We should not force such a problem upon him unless we are prepared to supervise his craftsmanship in detail. Occasionally an inner sole with a raise of leather exactly behind the head of the involved metatarsal will suffice, but its effectiveness is fraught with so many difficulties that we always elect the routine above elucidated.

Ring-worm (epidermo-phytosis) occurs about the base of the toes. It is due to a fungus growth, and the source of infection is by direct contact. It can occur through the use of public shower-baths, the promiscuous laundering of socks of an infected individual with the garments of a non-infected person, from the family tub, exchange of foot-wear and the likes. It is most common during the summer months, warmth and moisture encouraging growth.

Breaking of the skin about the basis of the toe, with formation of vesicles (small blisters), itch-

four days as friction tends to break the wire mesh in about this length of time. Recovery may be expected in four weeks. Molded metal supports have been found to be uncomfortable.

Papillomata (often spoken of as a "wart" or "hard corn" by the laity) are true tumor growths of the deep skin layers. Their predilection is for the thickened integument of the ball of the foot. They consist of a mass of compact skin cells with a hard central core, exquisitely tender—and when irritated become cauliflower in character. They are conical in shape, extend through the deep layers of the skin, the base being attached to the plantar fascia. The innocent-looking superficial evidence of their existence is no index of the extent of their deeper distribution.

Removing the upper layers of the excrescence at first gives relief, but the added irritation excites more rapid growth, the pain increases. Similarly unsuccessful has been our attempts to burn them out with such cauterizing agents as silver nitrate. The cure is often worse than the disease.

Believing that they are true tumors which are aggravated by irritation, we prefer the use of a soft rubber and metal insole foot-plate—salicylic acid in a collodian base is employed to remove the superficial layers, and, in 60 per cent of our cases, the growth is under control in three to four weeks and disappears in three to four months. Of the 40 per cent which do not respond to this measure, operation consisting of a wide excision of the entire growth, including its base, and the careful closure of the wound in layers, gives a satisfactory cure in all but a small percentage. Where operation has failed, we have subjected some few to deep X-ray therapy, and a few to radium treatment. We are impressed with the results, and feel that operation in the indolent cases may soon be supplanted by either one of these latter named modalities.

Deutschlander's disease, first described by C. Deutschlander in 1921, is a painful affection of the metatarsal bones, characterized by a sudden onset, persists for a number of months and then subsides. All his cases were in middle-aged women. The sole clinical finding was tenderness over the shaft of the involved metatarsal at the junction of the middle and distal third of the bone—movement of the corresponding toe was painful. X-ray about the ninth week seemingly shows an exostosis. It is a subacute, focal periostitis caused by the plugging of one of the small capillaries by an embolus, or clot in an unusually delicate bone, influenced by prolonged occupational weight-bearing. The treatment is local heat and rest.

Juvenile deforming metatarsophalangeal osteochondritis was first described by Freiberg in 1913 and due to the length of its technical appellation, it would seem excusable to use the less descriptive, but more plastic term "Freiberg's disease."

It occurs, especially during adolescence, frequently in growing girls, pain is referred to the affected metatarsal head, focal tenderness exists, and stiffness of the affected toe, due to muscle-spasm is present. The diagnosis is made by X-ray which shows flattening of the metatarsal head, broadening of the neck and irregularity of the epiphyseal line. The course is short, lasting but a few weeks with an occasional recurrence. Freiberg advises absolute rest by placing the foot in a cast and incorporating a thick pad of felt next to the skin beneath the metatarsal heads. Lateral and upward pressure in this region is applied to the cast while it is setting. When symptom-free, the patient is fitted with a comfortable shoe to which is attached a metatarsal bar, and further support of the arch is afforded by a combination metal foot-plate.

Sir Robert Jones, of Liverpool, is responsible for redirecting our attention to the frequent incident of fracture of the metatarsal bones, often the result of trivial accidents. Tortion motion, such as turning over on one's ankle not infrequently fractures the fifth metatarsal, close to its proximal head. We have seen patients who recall of nothing more violent than stubbing their toe, or hopping on one foot, while executing a dance-step, sustain a fracture of the shaft of the second or third metatarsal. Most of our patients have been over 30 years of age. The pain is focal, more acute on the dorsum of the foot, slight swelling is usual, and by movement of the corresponding toe, crepitus can be felt, X-ray confirms the diagnosis. Sir Robert advises complete rest. We have had no untoward results, while permitting continued weight-bearing, providing that the parts were adequately strapped. Here, again, we use a wire mesh splint upon which is superimposed a felt pad, and the dressing held in firm apposition with the sole of the foot, by taut adhesive bands. Three to four weeks is necessary for a cure.

Just a few words about *claw foot*. I speak of the congenital variety with a high arch, abnormally prominent metatarsal pad and upturned toes. Correction can only be attained by operation. The plantar fascia is separated from the os calcis at one sitting, and the cavus reduced. At the second stage, some three weeks later, the common extensor tendons are exposed through a long curved incision, over the dorsum of the foot tenotomized at the basis of the toes, passed through a tunnel formed by two converging drill-holes in the tarsal bones and transfixed after the method of Stindler. This gives a good foot in a large percentage of cases.

Arthritic metatarsalgia is unlike the static variety in many respects. It is primarily due to the local expression of a general systemic disease affecting the metatarso-phalangeal joints, and producing a chronic inflammation of the parts. The contraction of tendons is not of necessity

placement toward the plantar surface. Weak foot or flat foot invariably accompanies the deformity.

Hallux valgus, therefore, is a complex rather than a simple error, general distortion of the foot supplements the local defect. Disability is not due to the deformity but rather to the pain which is incited by (1) Inflammation of the bursa (bunion), (2) Pressure on the digital nerve by the metatarsal head, similar to the tenderness of a Morton's toe, and (3) Traumatic arthritis, secondary to infection of the bursa, or mechanical irritation an aftermath of faulty joint mechanism.

Treatment of the incipient or moderately advanced stages should consist of a proper shoe, a foot-plate, local splinting or pads, the removal of painful callosities and daily manipulation. The shoe must relieve the joint from undue pressure. A bar or cleat of leather $\frac{1}{4}$ " wide and $\frac{1}{4}$ " thick is nailed to the sole behind the metatarsal head, it may be skived down to paper thickness at its outer border if conspicuousness is objectionable. The inside line of the sole should be straight, the upper leather sufficiently soft and lax to prevent pressure. When the bunion is acutely inflamed, a hole may be cut in the upper, over the swelling and later filled in by a cemented leather patch which is not unsightly. A well-fitting combination metal foot-plate will take the weight off the joint, support the long arch and throw stress to the outer side of the foot. This is preferable to the metatarsal bar especially in women. Men, as a rule, will tolerate both and profit by their united action.

An interdigital splint of moulded rubber, of which there are commercial types, may prevent further local divergence—they are most valuable in the very mild types. If pads are used to protect the bunion they should be circular, their centers punched out and reinforced by lateral adhesive straps so placed as to abduct, or pull the great toe inward. Daily manipulation further aids abduction. It should be forceful, the aim being to stretch the displaced tendons and structures on the outer side of the toe. Acute inflammation of the bursa is best treated by wet dressings and complete rest. For ambulatory dressings we prefer ichthyol to iodine and supplement it with a daily hot foot bath.

Operation fell into disrepute, somewhat, during the world war. It has a place, however, and if undertaken, should have for its purpose the correction of the deformity, the restoration of muscle balance and the re-establishment of normal function. The operation described by David Silver in 1923, most nearly approaches this ideal.

The Mayo operation described in 1908 is a modification of Hueter's and in the hands of the majority of surgeons, is the most efficacious. It more closely meets the needs of the occasional operator and those who are not too familiar with painstaking aftercare.

Various modifications are practiced—the essential feature is the removal of the metatarsal head. The joint is exposed, and with a chisel, the entire head, except for a small portion of its inferior surface, is removed, together with any lateral bony excrescences. The stump is reshaped by filing away all sharp spicules. A flap, either from the bursa or capsule, is turned in over the raw bone surface and sutured in place, the extensor hallucis tendon tenotomized, the capsule closed and overlapped to a degree, sufficient to provide maintenance of abduction.

Any operation is but a step in the cure of hallux valgus. Consistent and persistent aftercare is essential. Early painless motion is advisable. Weight-bearing on the outer border of the foot is begun in from 10 days to two weeks. Splinting in an over-corrected position for three weeks is insisted upon. An old shoe with the inner half of the toe cut out is applied when the splint is discarded, i. e., between the third and fourth week and correction maintained by adhesive strapping. A stocking with a digit for the great toe (made by cutting the ordinary stocking) is worn during this period. After all swelling has disappeared, a new shoe of the inflare type is fitted. Passive abduction should be practiced by the patient daily to prevent recontraction of the external portion of the capsule. When foot form has been restored, our attention should be concentrated on restoring foot function. Plates should be worn and active exercises for adduction and inversion of the forefoot with toe flexion groups insisted upon, over a period of three months, eventually discarding the footplate. The contraindication for operation are:

- 1 Suppurative or ulcerative bursitis
- 2 Osteo-arthritis of the joint
- 3 Persons over 50 who have any evidence of chronic osteoarthritis (rheumatism)
- 4 Women whose sole purpose is the desire to again wear grotesque footwear

Injury to the sesamoid bones under the great toe, deserves detailed comment. They are subject to injury from direct pressure, the sudden descent from a high step or the impact caused by alighting from a moving vehicle, such as a trolley-car, may result in fracture. Pain is focal, confined to the ball of the great toe, unilateral in character, and made worse by dorsiflexion of the digit. X-ray shows the line of fracture. The joint is relieved of direct pressure by a metatarsal cleat. A splint is applied to the toe—we prefer two or three-ply wire mesh, cut in strips, the edges bound with adhesive and the surface covered with felt. This is attached to the sole under the arch, runs forward across the ball of the great toe to its tip, and is firmly fixed in place by adhesive. Its function is to immobilize the parts, rapid union of the fragments being promoted by local rest. The splint should be changed on an average of every

discarded when normal muscle and tendon leverages are restored. Exercises consist of efforts designed to increase toe-flexion, such as attempting to pick up things with the digits, together with adduction and inversion groups aiming to stretch the peronei tendons and heel-cord.

Occasionally all these measures fail to give relief. We are then confronted with the necessity of doing one of two things—either forcibly stretching the parts under anesthesia, and retaining them in a corrected position in a plaster cast for about three weeks, or the forcible manipulation of the forefoot with a lengthening of the heel-cord and immobilization in plaster for from four to five weeks. The lengthening of the heel cord should be a last resort, but no manipulation under anesthesia should be attempted without a distinct understanding with the patient that in the event of failure to properly stretch the structure, the operation is to immediately follow.

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the result of faulty footwear, but oft times due to the protective instinct of nature as a means of acquiring rest for the part by limiting function. There are two main types—the infectious and the toxic. The infectious type is usually seen in adults between the ages of 20 and 40. The onset is rather rapid, bony changes have not occurred—and hence X-ray of the joints is negative. Given an overweight woman between the ages of 20 and 40 with a flaccid hind foot, weak ankles and a depressed long arch, add to it the history of long hours of standing on a hard, resilient type of floor, coupled with any one of the following: decayed teeth, infected tonsils, a chronic frontal or maxillary sinusitis, an occasional sore throat (chronic pharyngitis or nasal catarrh), a leucorrheal discharge, the convalescence from a recent attack of typhoid, influenza or pneumonia and the type is visualized.

The immediate indication is the removal of the focus which is causing the trouble. Have those teeth attended to, those tonsils treated or removed as the indication may be, drain that sinus, irrigate that vagina, etc. The point to keep in mind is, that the removal of focal infection must precede local care. When this is done, strap the feet, until all local pain has subsided. Apply a well-fitting insole foot-plate, and advise the use of a heat-lamp 20 to 30 minutes twice a day. Massage and foot exercises are contra-indicated. They will only stir up latent foci and cause a recrudescence of symptoms. You don't have to tell these people to wear comfortable, common-sense shoes—they will.

The *toxic type* is best represented by the elderly, who have so-called rheumatism. Their joints become stiffened, they have cramps in the legs, X-ray shows marked changes in the joints. They have distorted, frowsy feet. Your immediate reaction is a regret that it is not within your power to give them a brand new pair of pedal extremities.

Local measures are palliative—the patient should understand this. Make him a pair of comfortable insolefoot-plates, such as has been previously referred to, advise a light-weight soft leather shoe, and suggest baking for a half-hour twice a day. Diathermy is now being used with more lasting relief than the simple heat therapy, but the condition is in the main intractable. As a routine in our clinic, we give iodides and salicylates in an agreeable menstrum, three to four times a day. Use high colon irrigations once a week when any history of constipation is elicited, and meet other exigencies as they arise. This often means the treatment of a general arthritic condition, which in itself is a big subject.

Static metatarsalgia is rarely an isolated phenomena. Some degree of weak foot invariably accompanies it. The large majority of cases occur in women, and most frequently in those overweight. All admit a passion for high heels,

a low-heeled shoe is unbearable, and as a result the "French-heel pump" appears to them the logical type of foot-gear. The cause is an open secret. I believe we will all agree that grotesque shoes are the basis for this malady. Clinically, the picture is characterized by a tight heel cord, contracted extensor tendons, atrophy of the normal fat pad and its replacement by a painful callous, together with a crop of corns on the dorsal surface of the toes.

Immediate relief is attempted by means of a felt pad and strapping. The pad is so arranged as to afford support for the long as well as the transverse arch, and extends far enough forward to insure protection of the metatarsal heads from further constant pressure. The patient's shoe habit must be changed, a high-heeled shoe ($1\frac{1}{2}$ in to $1\frac{3}{4}$ in) may be worn but a French heel is taboo, a pitch to the shank may be countenanced, but a sheer drop forbidden, the throat must be roomy, regardless of looks and comfortable accommodation afforded the toes. This sounds easy, but I will frankly admit its difficulty of execution. Here is one way out of it—tell them that you know the shoe looks atrocious, but that if they will wear it for three months they may wear any shoe they wish. This assertion may leave one open to criticism, but on reflection this is not so. At the end of three months their feet have so regained their contour that the freakish shoe is an impossibility.

It is in this type that baking and massage are invaluable aids in treatment. These modalities should be commenced as soon as the acute pain has subsided and the pad and straps dispensed with (3 to 4 weeks). The foot and leg should be baked for 15 to 20 minutes daily, massage follows for a period of 10 to 15 minutes, preferably by a masseuse, and the conclusion of the seance from 10 to 15 minutes is taken up with forcible stretching of heel cords and common extensors, their relaxation being the essential feature upon which permanent relief is based.

Promising the gradual relief by frequent strapping, the adoption of a proper shoe and the acquiescence to a regime of massage and stretching, one is prepared to apply a foot-plate. I know of no more distressing thing than to attempt the application of a foot-plate to a person with a moderately severe static metatarsalgia, without previously preparing the way. It is fatal, because the fundamental basis of tight heel-cord and extensor tendons has been overlooked. We do not hold to the wisdom of all-metal foot-plates in this affection, the combination leather and metal insole, with a sponge rubber insert, is infinitely more satisfactory. By preference they are made for the individual by our brace-man from a sketch. Commercial arches, even of this general design, are, in our experience, a failure.

Exercise supplements the fitting of plates, which we look upon as a palliative measure to be

After the blood disintegrates, it becomes loaded with a waste and useless material which must be dumped and will be dumped along the line of least resistance, which in the asthmatic is the mucous membranes of the head and air tubes.

Now, if at this prodromal stage the drinking water be uncontaminated and the diet scientifically manipulated so as to render it compatible with the asthmatic's disturbed nutrition, and if the weather conditions be favorable, this oncoming attack may be successfully averted without the aid of systemic chemicals or medicines.

But if the weather conditions are unfavorable, such as a coryza (hay-fever) or influenza weather, in order to prevent the oncoming attack, systemic chemicals or chemicals that are normally found in the body must be administered in the form of medicines as indicated to correct the body chemistry.

When the deficient normal body chemicals are determined and administered in accord with a proper diet, the oncoming attack will generally be prevented or rendered non-incapacitating, no matter what the weather conditions may be.

After the disturbed nutrition and perverted metabolism have altered the chemistry of the lymph and caused the unstable blood of the asthmatic to disintegrate, if the process is not averted, the circulation of the blood and the propulsion of the lymph carry the same to the lungs, where the lungs in the performance of their glandular function, mix and filter the lymph and blood, depositing the inferior, or waste products in the mediastinal, bronchial and tracheo-bronchial glands.

The blood begins first in the asthmatic to dump its waste products through the mucous membranes of the head and larynx, producing first a coryza (hay-fever) and laryngitis.

After the coryza stage, the laryngeal pouches are filled with thick, tenaceous mucus, which shoves the ventricular bands or false vocal cords into the lumen of the larynx sufficiently to produce a valvular action which shuts off the air and produces an attack.

The agony of the patient at this period surpasses description and one can read the pathology in his very attitude.

This laryngeal dyspnoea loads the bloods with carbon dioxide, interferes with the circulation, dilates and congests the capillaries of the bronchi, bronchioles and air cell walls, rendering them erotic and non-collapsible. These processes rapidly combine to result in the asthmatic respiratory block.

After about twenty-four hours of this laryngeal dyspnoea the glands undergo a resolution and degeneration with the expulsion of thick mucus, which is in thick lumps the size of a pigeon's egg, and is of a tough, tenacious, viscid consistency which gives it an appearance of fat

tissue and enables one to pick it up and handle it about.

On inspection this mucus is found to contain several little grayish pearly balls which on being unraveled and viewed under the microscope are found to be composed of delicate convoluted spirals (Curschmann's) made up of numerous individual filaments. Other portions of the sputum under the microscope without staining, are found to contain numerous leucocytes, exhibiting bright yellowish, coarse granulations, among which are numerous colorless, pointed octohedral crystals (Charcot Leyden's). Numerous eosinophile granules, which are derived from ruptured eosinophile cells, are also found scattered throughout the field.

The composition of this mucus shows that it has been dumped by the disintegrated unstable blood of the asthmatic. The sputum of the asthmatic is frequently tinged with blood and the asthmatic usually has a bloody taste in his mouth.

The process of engorgement of the mucous membrane and glands and pressure from the enlarged glands rapidly extend downward, involving the trachea and bronchi, producing attack after attack, until the blood changes or drifts over to the anemic variety. A new vicious circle is now established, the anemo-vascular.

In this anemo-vascular variety of asthma with the dilated blood vessels and capillary congestion which result from the asphyxia of the preceding attacks, also generally with an hypertrophied right heart and emphysema, the asthmatic is in a wretched condition from which his deliverance becomes a difficult problem.

The blood now at an interval between attacks has a low hemaglobin scale, flows in rapid-forming, large, thin, watery drops with a low viscosity, slow coagulation, marked but scant rouleau formation with island-like groups and a low red cell count. Such an asthmatic has attacks night after night, often never attempting to rest in bed for years at a time.

This interval of freedom is seldom attained, as the attack is more or less constant, abating enough day times to allow the patients to be up and about, while some follow their usual occupations.

During attacks the blood resembles that of the toxic leucocytic type of asthma.

The capillaries of the alveoli and bronchioles in this type of asthma are so congested that the percussion note is solid and there is not enough air entering the alveoli to produce a wheeze in the lower lobes of the lungs. These lungs resemble a water-soaked sponge. The dyspnoea of this type resembles that often found in chronic non-febrile tuberculosis.

When the asthmatic is on the delicately balanced respiratory margin characteristic of this variety of asthma, the least deleterious change in the chemical or dust composition of the in-

THE BIOCHEMICAL METABOLIC BLOOD ORIGIN OF ASTHMA AND ITS SCIENTIFIC PREVENTION *

By GEORGE N JACK, M D

BUFFALO, N Y

TWENTY-SIX years ago, I first maintained that asthma was of blood origin and not nerve reflex or spasm. Today, after a study of 1,431 cases, I maintain that I have collected enough clinical and scientific material to positively demonstrate that fact.

The field is large, embracing all the physical laws pertaining to life, also acquired and inherited peculiarities, as shown by a brief synopsis of the work.

The clinical notes and records of cases treated as chemically and clinically indicated according to recent discoveries, most convincingly demonstrate that the reason that asthma has always been such a dreaded disease to have and such an intractable and discouraging one to treat, was due to the fact that its etiology and pathology were not known.

There is no specific cause nor treatment for asthma.

In primitive medicine all dyspnoea or shortness of breath was classed as asthma.

With the discovery of urinalysis and a knowledge of the functions of the kidney, it was discovered that a diseased kidney would produce dyspnoea, which gave a renal asthma, and asthma proper.

With the discovery of the stethoscope, it was found that a diseased heart would produce a dyspnoea, which gave a renal asthma, a cardiac asthma and asthma proper.

With the discovery of the microscope and a knowledge of the morphology of the blood, it was discovered that certain blood diseases as pernicious anaemia and leukaemia were accompanied with dyspnoea, which gave a renal asthma, a cardiac asthma, a pernicious anaemic or leukaemic asthma and asthma proper.

There remained to be demonstrated the lymph propulsion and exchange, the glandular action of lung tissue, the pathology of asthma and the biochemical metabolic blood changes that produce asthma. With the demonstration of these facts, it follows that asthma is a biochemical metabolic blood disease with dyspnoea as its late symptom and is not a disease due to a spasmodic contraction of the air tubes, as heretofore supposed. Dyspnoea and asthma, therefore, can no longer be used as synonymous terms.

That the lymph circulated has long been an acknowledged fact, but how it circulated, where it went and whence it came, no one has determined before, or even offered a good guess.

The solution of the lymph propulsion and ex-

change problem² not only enables us to scientifically treat asthma, but, it, together with the discovery of the fact lung tissue performs a glandular function³, has a great and important bearing on all respiratory diseases from pleurisy to tuberculosis.

Asthma cannot be scientifically treated without a knowledge of the biochemical metabolic blood origin of the disease, the lymph propulsion and exchange and the glandular action of lung tissue.

My study of asthma has convinced me that, while the unstable blood of many asthmatics is sensitized for life to certain hemolytic phenomena or gases, the physician who is familiar with the etiology and pathology of asthma can educate eighty per cent of his patients how to successfully cope with their problem.

The old axiom, "Know thyself," is of vital importance to the asthmatic. The education of the asthmatic is an essential factor in the scientific prevention of asthma. The asthmatic must be educated as to what the different blood disintegrating agents are and then taught how to avoid them.

I maintain that there are three well-defined vicious circles of asthma, namely, the lymphocytic, the toxic-leucocytic and the anemo-vascular.

A brief synopsis of one of these vicious circles, the toxic-leucocytic, is as follows. The asthmatic has an unstable blood. This unstable blood has been either inherited or acquired through generally a long period, perhaps years, of dietetic errors or unfavorable environments.

The asthmatic's unstable blood is always playing close to the wheeze or dyspnoeic margin.

From thirty minutes to two or more weeks before an attack of dyspnoea, the nutrition, metabolism, blood and lymph, or the body physico-chemicals of the asthmatic are unusually disturbed or perverted, as manifested by polyuria, a coated tongue, flatulency, indicanuria, chyluria, acidosis or occasionally glycosuria.

The stools are generally toxic, putrid and alkaline with a rotten egg or meat odor, or they are acid, gaseous, fermenting with a disgusting, irritating, penetrating odor, often showing mucus and particles of undigested food.

This disturbed nutrition produces toxic substances or deleterious chemical re-agents that, when absorbed from the intestine by the lymph and blood, either in the form of gases, liquids or putrefactive alkaloids, so interfere with the chemistry of the asthmatic's unstable blood that it disintegrates. This blood disintegration is generally ushered in with a chill, a feeling of depression or mental anxiety.

* Read by invitation, October 13, 1925, before The Medical Society of Bay Ridge, Brooklyn, N Y

action This must be accomplished by manipulating the diet and occasionally administering alkalies as sodium bicarbonate Some of the foods that tend to increase the alkalinity of the blood are oranges, lemons, peaches, cantaloupes, beans, potatoes and fresh vegetables Some of the foods that tend to diminish the alkalinity of the blood are prunes, cranberries, meats and cereals Where there is any tendency to edema salt should be restricted

The rechemistration of the asthmatic's unstable blood must be assisted by prescribing foods that contain the deficient blood chemicals and that are rich in vitamins or chlorophyl and protoplasm, as found in green vegetables, eggs, rare beef, milk, cod liver oil, etc., and by prescribing sunshine, outdoor atmospheric electro-magnetism, occupation, recreation, change of environment, etc

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son may drink ten quarts of water in ten hours and not eliminate over a pint by the kidney

In Buffalo, July 6, 1925 when three deaths were reported from the heat wave, the noon temperature was only 78 degrees, but the humidity was high or 81

Heat humidity hemolytic crises as congested capillaries, swollen extremities, edema, summer autumnal coryza, asthma, heat exhaustion or sunstroke, eczema, cholera infantum, cholera morbus, etc., should be guarded against by the measures already outlined and also by the restriction of cereals and meats

A heat humidity hemolytic crisis is also manifested by a small, dark drop of blood with a high viscosity and rapid coagulation, with a rapid, dirty grayish-brown hydrogen peroxide reaction, and scant, brown, highly acid urine with a high specific gravity and indicanuria

Although many of my patients have gone from fifteen to twenty years without an attack and consider themselves permanently cured as shown by the following case, yet I consider the unstable blood of the asthmatic to be sensitized for life to certain blood disintegrating agents which should always be guarded against

Case No 365—Referred to me by the late Dr H P Jack, Sept. 2, 1911, Master F A., Almond, N Y, age 13, weight, 81 lbs Had asthma for 3½ years, attacks coming on about every three weeks and lasting for two weeks During attacks would have to sit up in a chair from 1 to 3 A. M Had diarrhoea and frequent urination before attacks

F H Aunt, asthma and rheumatism, mother, migraine, father, salt rheum or eczema.

This patient has practically had no asthma since he began treatment, or for thirteen years to date of last report, Aug 4, 1924

If the asthmatic, thinking himself cured, neglects to return for the required examinations and analyses and stops the treatment before his blood, urine, stool and sputum show that he should and begins to wheeze, he has no one to blame but himself

Asthmatics have been lied to and defrauded so much by advertised nostrums, some of which are dangerous protoplasmic poisons or habit-forming drugs, that it is extremely difficult to convince them that asthmatic seizures or what to them constitutes asthma, can be scientifically and satisfactorily treated But when the asthmatic is once convinced that some one is telling the truth about asthma and is able to rob the disease of its indescribable horrors, he will travel many miles and undergo great hardships to consult such a physician

After a physician sees numerous cases like the following, he is convinced that the prevention of uncomplicated asthma can be accomplished.

Case No 253, June 10, 1910, Mrs H, Snyder, Canada age 38, farmer's wife, five children At

seventeen had inflammation of the bowels, later congestion of the lungs, asthma when an infant, free from asthma from infancy to age eighteen, from eighteen until date of consultation had asthma in a very distressing form, never knowing when attacks would come or go, almost every day or night and not influenced much by seasons; warm, muggy weather bad for her asthma, had to sit up all night while having an attack, took morphine nearly every night and did not receive much relief Mother had sent her to Denver and Muskoka with no benefit

One week after beginning treatment, reported no asthma after the first twenty-four hours' treatment Slept soundly every night Still coughed considerably and felt a little weak, but began to do light work One night she was afraid she would have an attack and sent fourteen miles for morphine, but did not need it

No asthma one week later, stronger and did more work than she had been able to do for years

A week later reported no asthma, stronger, doing her own housework, taking care of dairy, hoeing in the field, raking and loading hay

This patient took two quarts of buttermilk a day with her prescribed diet and she gained in weight, her weight when she began treatment was 134 lbs and on Sept 26, 1911, it was 148 lbs She had a few reminders of asthma when she neglected to follow out her prescribed treatment on April 10, June 30, August 22, Sept 6, 1911, and Jan 22, 1912

On March 14, 1913, a reminder of asthma, followed by tonsillitis which was followed by inflammatory rheumatism

July 23, 1914, reported only two mild attacks during the last year, but considerable rheumatism

October 8th, reported no asthma and claimed that she was cured of the morphine habit.

February 8, 1916, reported no asthma but still considerable rheumatism

July 30, 1916, reported no asthma but rheumatism

Asthma often abates at puberty In women, attacks of asthma often accompany menstruation Many women develop asthma at the menopause Asthma often leaves in old age with the development of senile anaemia and atrophy of lymphatic tissues Asthma is frequently accompanied by or alternates with eczema, rheumatism or migraine and in heredity, they frequently follow Mendel's Law, parent asthma, child migraine, eczema or rheumatism, grandchild asthma The unstable blood of the asthmatic thus constitutes a more or less permanent defect

After the asthmatic's unstable blood disintegrates it flows in dark, slowly formed drops with a high hemoglobin scale, a high viscosity, a rapid coagulation and a thick consistency, showing a slow, dirty, grayish-brown hydrogen peroxide

July 13th—No asthma, sleeping the best she has ever done. Taking two quarts of thick milk a day. Vegetables added to diet.

May 31, 1921—Gained 17 lbs in weight. No asthma.

May 5, 1922—Last report, has had practically no asthma since beginning treatment. While under observation she was in excellent health and did her own housework.

Climatic, telluric, meteorologic, atmospheric or weather conditions favorably or unfavorably affect the unstable blood of the asthmatic or coryza (hay-fever) subjects.

A meteorologic condition that will affect one subject favorably may affect another unfavorably. A climatic condition that will affect an asthmatic favorably at one stage of his asthma may affect him unfavorably at another stage of the disease.

For the asthmatic or coryza subject to undertake to find a climate compatible with his make-up is a discouraging task and generally ends in disappointment.

The effect of weather conditions upon the unstable blood of the asthmatic and coryza subjects has resulted in a thousand superstitions.

Asthma and metabolic or climatic coryza or the so-called June colds, hay-fever, la grippe and influenza are amendable conditions when scientifically treated from a nutritional, metabolic, blood, etiologic standpoint.

While we cannot change the weather factors, we can so fortify the system that it will stand unfavorable weather without an attack.

All unstable bloods do not originate from the nutrition or alimentary tract, and in such cases an interference with a self-selected diet only as indicated by a test diet will often do irreparable harm, if not result in a new vicious circle that is very difficult to correct. Thus indican and other deleterious substances in the urine come from a toxic blood which may or may not have originated from an intestinal disturbance. The origin of a toxic blood then must be determined by a study of the blood, urine and stool.

No treatment for asthma will be satisfactory unless the asthmatic's unstable blood is protected from hemolytic agents that it may be extremely sensitized to as a chilly or heat humidity and musty, mouldy, decomposing sewer, swamp or animal gases. The protection in some cases can be obtained only by a change in residence, climate or occupation.

The asthmatic should be treated at home so that his treatment can be adjusted to his home environment.

The following case shows how the asthmatic depends upon the medical profession.

Case No 250, Dec 6, 1909, Mr W P, age 56, occupation, traveling pharmacist, syphilis 30 years ago, paralysis vocal cords 18 years ago

from which he never completely recovered, spotted fever 18 years ago, asthma began twenty-two years ago while in Denver, Colorado, altitude, climate or seasons of no benefit, asthma all the time, sits up every night and labors for breath, has tried everything, father was a prominent physician, at one time U S Surgeon-General.

After the first three days he reported that he was feeling and breathing better and had sat up only one hour the night before.

The following week he reported that he slept all night, attended to his furnace and ran upstairs, things he had not been able to do for the last twenty-two years.

This patient had practically no more asthma except a reminder, December 28, 1916, which lasted for two weeks when he neglected to follow out instructions. Patient died January 23, 1919, of dilated, intermittent heart.

There is no disease that more positively shows the relation between the body chemistry, food, water, air and sickness than asthma.

During hot, windless, cloudy or partly cloudy, humid periods of weather, when the temperature is above 86 degrees and the humidity above 70, heat humidity retention hemolytic crises should be guarded against by administering cathartic doses of castor oil and mineral oil every morning and taking nothing but orange juice and hot water for breakfast.

They should also be guarded against by the drinking of plenty of water and by keeping as cool as possible by protection from the sun, by running water fountains, electric fans or riding in a covered, open vehicle or exercising vigorously enough while drinking lots of water to produce a free perspiration.

A hemolytic crisis caused by chilly, humid, windless nights with a heavy dew, or nights when the temperature falls below 62 degrees, should be guarded against by heat and light, the best light being an electric light.

The asthmatic should also be protected from hemolytic, night atmospheric gases upon these nights, by a gas filtering ventilator, unslaked lime on the floor, camphor gas, naphtha balls and pine needles, also by burning saltpetre if distressed by asthmatic dyspnoea. If out of doors on these nights after dew falls, he should protect himself by the U S army gas mask.

Heat, humidity, hemolytic crises are due more to a retention of end metabolic products partly through a dilatation of the capillaries than to a loss of blood fluid by perspiration.

In hot, dry or arid locations as deserts where perspiration is increased by its rapid absorption, there is less disturbance from heat than in windless, humid locations where perspiration is retarded by its accumulations upon the skin.

In extremely hot, arid, desert locations a per-



EDITORIALS



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reaction. The cells are glued together forming an opaque, shapeless, adherent mass and when differentiated by extra pressure on the cover glass, many of the erythrocytes are disintegrated, the leucocytes increased, with many eosinophiles.

The urine is scant, dark brown or bloody brown with a high specific gravity and often showing indican.

At this stage, the blood's equilibrium is reversed and its existence depends upon the immediate dumping of its disintegrated material. This is dumped along the line of least resistance or the air tubes.

At this stage the blood-dumping process should be aided by the administration of castor oil and mineral oil, the inhalation of potassium nitrate smoke (saltpetre) and the withholding of all foods, except hot water and orange and lemon juice.

As soon as the blood has dumped its disintegrated material and reached its nourishment-absorbing equilibrium, it is shown by the blood flowing in large, rapid-forming drops with a low hemoglobin scale, a low viscosity, a slow coagulation, a thin consistency and a rapid, pinkish-white hydrogen peroxide reaction. The blood readily spreads under the cover glass and shows a marked rouleau formation.

The urine is characteristically negative and light with a low specific gravity.

At this stage, the asthmatic's nourishment is begun with first, whey, second, whey and toast, third, toast and lopped milk, fourth, lopped milk, cereals and vegetables, fifth, eggs and sixth, beef, lamb or fowl.

The asthmatic's food must be limited in quan-

tity so that he will not eat beyond his metabolic rate.

If the asthmatic eats beyond his metabolic rate, he will too greatly increase the viscosity of his blood which will often result in dyspnoea. This high-viscosity dyspnoea, if continued long, will disintegrate the asthmatic's unstable blood and result in a genuine attack of asthma.

In order to prevent these over-feeding, high viscosity, blood disintegrations, the asthmatic's blood and urine should be examined weekly and if the viscosity is too high, castor oil and mineral oil should be administered and a twenty-four hour starve period advised.

The asthmatic should return to the office of his family physician once a week for an examination during the first three months of treatment and once a month all of his life.

The examination of the urine and stool is of so much importance that the asthmatic is often furnished with charts and litmus paper and instructed in their use.

By modifying the lymph propulsion and exchange, aiding lung tissue in the performance of its glandular function, protecting the blood from hemolytic, meteoric-telluric phenomena and gases. While cleansing and correcting the chemistry of the blood as and when indicated, the prevention of asthma becomes a scientific and satisfactory procedure.

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EDITORIALS



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MEDICAL PROGRESS



The Viruses of Epidemic Encephalitis and of Herpes—H Pette, of Hamburg, writes in the *Medizinische Klinik*, of April 9, 1926, regarding the relationship of these two viruses as demonstrated in animal experiments. Beginning with the use of the cerebrospinal fluid of encephalitis patients and the contents of the vesicles of human herpes simplex it was found some years ago that both of them produced a form of encephalitis in the rabbit, known from the first experimenter as "Kling's encephalitis." But this striking coincidence led to nothing definite, for clinically not the slightest analogy was found between the patient with encephalitis and the one who for any reason developed the vesicles of herpes simplex. On the contrary, further research only clouded matters. It was gradually learned that forms of encephalitis could be set up in rabbits which have been inoculated with the cerebrospinal fluid from a great variety of diseases—multiple sclerosis, tumors of the brain, cerebral syphilis, meningitis, pneumonia, influenza, etc. This line of effort was followed up by Flexner, of the Rockefeller Institute, New York. If one assumed that the cause of all of these laboratory diseases was an ultramicroscopic virus, then this organism must be ubiquitous. The author points out that in recent years there have been many reports from various parts of the world of spontaneous encephalitis in animals coincident with the outbreak of epidemic encephalitis in man. To come back to the subject of herpes there ought in theory to be a general infection of which the vesicles of herpes are merely an outward expression, but the only evidence that such a thing is possible is that of two cases of encephalitis in the rabbit following subdural injection of the cerebrospinal fluid of a patient with herpes. Despite the present confusion some increase in our knowledge may possibly come eventually from the data thus far obtained.

Herpes Genitalis—D von Pezold discusses this condition from the new viewpoint that the disease is infectious. There are two forms of herpes, simplex and zoster, and two forms of herpes simplex, facial and genital. The latter while in a sense trivial, may sometimes through its complications be burdensome, as when it causes inguinal adenopathy, or when it appears within the urethra. In such cases it may cause disability. It also may be very burdensome from its tendency to recur—at times almost continually. The author isolates what he terms a sexual type produced by men-

struation and orgasm, whether by coitus, masturbation or involuntary pollution. But in the constantly recurring type any trivial irritation, as an erection of the penis or ordinary uncleanness will precipitate an attack. Genital herpes shows a greater tendency to recur if the patient develops either gonorrhea or syphilis. It is only quite recently that the old neurogenic theory of herpes has given place to the doctrine of infection, based on the inconclusive fact that the contents of the vesicles are virulent when inoculated into small animals. While they may not reproduce herpes, they cause other lesions, and notably a form of encephalitis. Moreover this secretion contains so-called cell inclusions, which apparently indicate the presence of some ultramicroscopic organism, so that herpes simplex may be placed in the large group of infections which comprises herpes, zoster, molluscum contagiosum, venereal warts, trachoma, and even variola. The author distrusts the diagnosis of genital herpes and would always test the secretions for the treponema and Ducrey's bacillus and of testing the seroreaction of the blood for syphilis. In the treatment of relapsing herpes the most diverse remedies have been recommended—arsenic, small doses of potassium iodide, and yeast vitamin—even tomatoes, because of their content in water soluble B vitamin—*Deutsche medizinische Wochenschrift*, April 16, 1926.

Retraction of the Palmer Aponeurosis Associated with Dilatation of the Aorta.—Boulogne, writing in the *Bulletin Médical* of February 17-20, 1926, reports a case of the above coincidence. The patient, a man of 42, a mechanic, developed a retraction of the ring and little fingers symmetrical for both hands, these fingers being claw-like and distorted by a characteristic nodular aponeurotic cord, the index and medius being intact. There was no muscular atrophy in the forearms. This deformity had a traumatic origin going back to 1915, but the mechanism was obscure. The patient had been injured as a result of an automobile accident, but no lesions were apparent. There was a period of latency and the right hand was the first to show the deformity, the left soon following. The patient had always refused an operation. The author started with a theory of lupetic infection and although the Wassermann was doubtful gave the patient injections of arsenobenzol without any amelioration. A year or so after the development of the retraction the patient developed an intercostal neu-

ralgia found to be due to a right scoliosis at the level of the fourth and fifth dorsal vertebrae. The radiogram accidentally showed a dilatation of the aorta. The Wassermann was at this time clearly positive and the patient was placed on intravenous cacodylate of mercury but without changing the seroreaction. The ectasia of the aorta was unaccompanied by any clinical symptoms. The author believes that all three of the acquired malformations had a common origin and seeks to account for their interrelations. Could the dilated aorta have compressed the nerve roots, causing a trophic disturbance in the hands? This would hardly account for the scoliosis, unless this deformity had aided in making possible the compression. The roles of traumatism and syphilis are also obscure, but both may have figured in preparing the aorta for dilatation.

Toxemias and the Skin—Guillaume, in a long article in the *Bulletin Médical* of February 10-13, 1926, discusses the protective role of the skin in toxemias, simple and infectious. As is well known, the skin shows a peculiar reactivity in toxemias and bacilleurias, and this may be encountered as well when the processes are intraintestinal. This participation of the skin enters into the genesis of certain dermatoses which often improve notably after the alimentary canal has been evacuated. On the other hand the lesions are not favorably influenced by measures directed entirely toward the skin. In idiosyncrasies to drugs and food-articles, with outbreaks of wheals, etc., the cutaneous lesions resemble those produced by anaphylactic sensitization. In these cases a variety of measures may be useful and the toxigenic mechanism involved appears to be the vegetative nervous system, which has had its balance disturbed. It is well known that after severe burns a peculiar toxemia develops and the author associates this with the abolition of the antitoxic functions of the skin. In syphilis, when the disease expends itself on the cutaneomucous system, nervous accidents are very rare and unimportant because this system forms the natural defense against the treponema. The author now passes to surface immunity or allergic phenomena in which the immunisation of the skin is usually sufficient to protect the entire organism, as in smallpox vaccination and in the skin immunity which follows the syphilitic chancre, this being sufficient to render the skin immune to further inoculation. The diagnostic reactions of Schick, of Dick and of Pirquet and the analogous mallein reaction illustrate the same basic principle of immunity, showing that the latter exists naturally, just as certain forms of vaccination or inoculation immunity can be produced at will. In debilitated individuals the cutereactions seem

feeble in comparison with those in the robust. The author is not at all clear as to the interrelations between cutaneous and humoral immunity processes but evidently believes that the former must depend on the latter and these in turn on physicochemical processes.

Typhoid Bacillus Carriers—Hilgermann has for some time been treating typhoid carriers by means of sodium salicylate, given if necessary in massive doses. The idea is based on the fact that this salt, which is bactericidal to the typhoid germ, is eliminated partly in the bile. After the principle had been upheld by tests in vitro and animal experiment, the author began to employ it in human carriers with signal success, up to a certain limit, that is to say carriers could be sterilized and kept sterile over long periods, as long as they were taking the drug. The author mentions only sterilization of feces, saying nothing of the urine, although in the United States it is deemed necessary in all cases to sterilize the urine as well. When the drug is discontinued bacilli begin after a time to reappear in the stools. The author then passed to the treatment of animal typhoid caused by injecting the most virulent cultures into the peritoneal cavity of the guinea pig, with intravenous injection of the salicylate. The effects were striking, for some of the animals survived while the controls all succumbed. But some of the treated animals, although found sterile after death, died of a toxemia due apparently to the sudden lysis of a large number of bacilli and the release of the typhoid toxin. To control the latter the author combined his drug treatment with the use of typhoid antitoxin and was able to make a clean score of cures of the laboratory disease. He will in time report his experience in the treatment, along these lines, of human typhoid—*Muenchener medizinische Wochenschrift*, March 26, 1926.

Epidemic Angina Pectoris—Professor Hans Kohn discusses this subject in part from the historical angle. The term seems to have been used originally by Kleefeld who in 1823 reported an episode of the alleged affection in *Hufeland's Journal*. On examination this term seems to have been a misnomer for the condition described was clearly an infection, perhaps a grippe pneumonia. Late in the 50's Gelineau, who at the time was surgeon to the French warship "Embuscade," witnessed an epidemic form of angina which attacked some of the 250 members of the crew but the event was not reported until 1862. It was a period of sickness, the vessel being on a long cruise. In addition to the presence of scurvy, there were a number of cases of neuralgia and a condition formerly termed "colique végétale," with many synonyms, the English calling it dry belly-ache. Upon this substratum the symptoms of angina pectoris developed in 14 of the crew

At first Gelineau did not associate it with tobacco although when finally this thought occurred to him he espoused it warmly. He had associated the angina with the other neuralgias, while the colic was also regarded as of similar origin. At a somewhat later period the "colique végétale" was found by nosographers to be nothing more or less than plain lead colic and Kohn found that the French warships of that era abounded in lead construction. If we suppose that the 14 crew had lead colic the neuralgia of others could be similarly explained. If now we read the work of Tanquerel on lead angina pectoris we see how easily it fits into this episode. Finally we can explain the lead angina today as due to a spasm of the coronary arteries—one of the so-called "vascular crises" of Pal, who cites cases due to plumbism. Kohn exculpates tobacco as a factor, for every sailor uses this weed freely.—*Deutsche medizinische Wochenschrift*, March 12, 1926

Arteriosclerosis of the Cerebral Vessels and the Pathogenesis of Hypertension—Anrep and Starling, in a recent study, seem to have established as a definite physiological law a fact that has long been recognized by physiologists, namely, that a reduction in the amount of blood reaching the brain (presumably that part of it which has to do with vasomotor control) brings about a compensatory rise in the systemic arterial pressure. In consideration of this fact James Bordley, III, and B. M. Baker, Jr., (*Bulletin of the Johns Hopkins Hospital*, April 1, 1926, xxxviii, 4) investigated 24 cases of generalized arteriosclerosis, in 14 of which there was definite arterial hypertension, in order to determine if there were any contrasting anatomical conditions in the arterial supply of the medulla oblongata in these two types of cases. Arteriosclerosis was found without exception in the cases with a history of hypertension. In the cases with normal blood pressure the arterioles in this region were found unaltered. The authors feel justified in concluding that there is at least an association between persistent hypertension and arteriosclerosis of the vessels supplying the brain stem. In so far as it has long been recognized that arterial hypertension is accompanied by arteriosclerosis in at least some portion of the body, they suggest that a localization of this process in the medulla oblongata may be the essential factor in the production of persistent high blood pressure, although they recognize the objection that these changes may be secondary to the hypertension.

Palpable Arterial Coats in Children.—During the past year or two A. E. Vipond (*British Journal of Children's Diseases*, January-March, 1926, xxi, 265-267) has met with thickened arterial coats in a considerable number of children, and reports several illustrative cases. He finds that the condition is familiar,

and either the father or the mother will be found to have palpable arteries. The left ventricle is not hypertrophied, the blood pressure is normal or may be very slightly increased. If nephritis exists it is accidental, the condition is not connected with syphilis, scarlet fever, or any other disease. The condition is often discovered accidentally. Whenever a child is thin and below the normal size, it is well to look for palpable arterial coats. In fact the author makes a practice of examining the arterial coats of any child who is brought to him and is underweight and under size, and he frequently finds that the condition of arterial thickening exists.

Arsenical Treatment of Deafness—E. Wodak refers to a recent observation by Higier concerning two would-be suicides from arsenic who as a result of the poisoning recovered their long lost hearing. He had formerly pursued studies along this line and at once resumed them. Originally he had treated only otosclerosis and with injections, but now he made no distinction between the causes of deafness and gave arsenic by the mouth in the large dosage which obtains in pernicious anemia—from 30 to 50 mgms of arsenate of sodium daily in pill form. It is of course possible to go even higher but while the dosage was on the whole well borne some of the patients suffered from digestive disturbances of a burdensome character. When tolerated the treatment was kept up until between 200 and 300 mgms had been taken all told, after which the patient was given several months rest. The author has now treated 166 deaf subjects with all forms of deafness—otosclerosis, chronic otitis media, cochlear neuritis and senile deafness. All of these forms have been benefited and no one form seems more or less amenable to treatment than another. In the best results the patient hears 10 fold more or better than before treatment and in the least favorable twice as well. In about a third of all cases however results will be negative and of his 166 some 62 failed to obtain any relief. Ten obtained the highest grade of relief, 16 the next highest, 35 the third highest while 43 obtained the least benefit although doubling their hearing power. Of the 166 patients 100 suffered from chronic otitis media and its sequelæ, 32 with otosclerosis, 17 with cochlear neuritis and 8 with senile deafness. *Deutsche medizinische Wochenschrift*, March 26, 1926.

Cholesterol Metabolism and Hair Growth—Rud. Jaffe mentions the belief that the normal stimulation of hair growth is due to the cholesterol content of the sebaceous glands, so that conceivably an excess of this substance in the blood with increase of elimination favors hair growth just as a lowered content results in shedding of the hair. This view is borne out by

certain facts as in the case of pregnant women who show a luxurious hair growth but after delivery begin to lose hair rapidly. Here the hypercholesterinemia of gestation, associated with and dependent upon cessation of elimination of the substance by the bile, is followed by a great reduction due to resumption of such elimination. It occurred to Jaffé that if chloesterol were rubbed into the skin and later eliminated with the sebum the hair would get the benefit of the reinforcement of the ordinary amount. He then conducted experiments on rabbits, using controls, in which large surfaces were denuded of hair by depilatories. Into some of these patches he rubbed cholesterol in ointment form, of 50 per cent strength, some ointments being pure while others contained some tarry substance. When these areas were contracted with others in which nounctions had been made it could readily be seen that islets of hair growth were forming in the denuded skin, about four weeks being required for the purpose. There was also a deposit of pigment in these islets. Comparing the total results it was evident enough that the cholesterol and not the tar was to be credited with the positive result. The author is to write a sequel on the clinical use of the remedy in man—*Klumsche Wochenschrift*, March 19, 1926.

The Use of Non-Specific Foreign Protein in the Treatment of Inflammatory Lesions of the Female Pelvic Organs—Since 1923, A. D. Campbell (*The Canadian Medical Association Journal*, April, 1926, xvi, 4) has treated 300 cases in both hospital and private practice with protein injections. Of these he has analyzed and tabulated the first 100 completed cases. The earlier trials were restricted to patients in whom inflammatory disease had converted the pelvic viscera into a painful mass. Later, however, the treatment was extended to include gonorrheal infections, acute or chronic, as well as infections of uncertain types following abortion, parturition, curettage, etc. The technique consisted in the use of commercial milk sterilized in a water-bath for ten minutes, the usual aseptic precautions being taken. The site of the injection was in the area below the crest of the ilium in the mid-axillary line, because here the superior gluteal nerve is the only one possible to be injured, while in the gluteal region the nerve supply is more abundant. The initial dose is 4 c.c. subsequently increased to 6 to 10 c.c. One injection every five days apparently gives the best results, though the intervals may vary

from four to seven days. The general reaction begins in from 45 to 90 minutes and the temperature may reach from 101° to 104° in six to eight hours, rigors rarely occur and vomiting still more rarely, though headache is an almost constant symptom. The acute cases showed 55 per cent of cures, with nine weeks of treatment, while the chronic cases showed only 18 per cent of cures, and this in spite of twelve weeks' treatment. With infections involving the higher portions of the tract, whether salpingitis or tubo-ovarian infection, with so-called pelvic peritonitis, the results were about the same in each group, namely, 44 per cent cured, 40 per cent improved, 16 per cent no change, except that tubal infections not involving the ovary required twelve weeks' treatment as against nine weeks where there was no tubo-ovarian mass. In the chronic types of cases the treatment proved distinctly disappointing, giving only about 20 per cent of cures.

A New Application for Varicose Ulcers—Robert H. Davis (*Archives of Dermatology and Syphilology*, April, 1926, xiii, 4), at the suggestion of F. P. Dunnington who thought it would be a stimulating and antiseptic application for ulcers and an excellent antiseptic remedy for small abrasions, tried a formula consisting of boracic acid 63 gm., potassium hydroxide (stick) 28 gm., and water 200 c.c. in 55 cases of varicose and traumatic ulcers. The lotion is prepared by heating the boracic acid and potassium hydroxide with 150 c.c. of water in a porcelain dish, allowing it to cool, and then filling it to 200 c.c., giving a solution with a specific gravity of 1.2. In only one of the 55 cases was there complete failure to respond to the treatment. The solution, while mild in action on the unbroken skin, is frequently painful if used in full strength on ulcers. It appears to be best to begin the treatment by using the solution in one-half strength, increasing tentatively to full strength if the pain is not too great. Some of the chronic indolent cases did not respond until full strength was used, but the majority of the patients did well with a lesser concentration. If possible, the application should be made tri-weekly at least. An elastic webbing bandage for severe varicosities was used during the day in a few instances. Davis has used this treatment for two and a half years on all varicose and traumatic ulcers coming to his department, and feels that it is at least an additional valuable method in combating this often stubborn condition.

LEGAL

By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

THE WEBB-LOOMIS BILL BECOMES A LAW

The 17th day of May, 1926, will stand out as an important date in the history of the public health in New York State. On that day the Webb-Loomis Bill was signed by Governor Smith and became a law. It is now a part of the statutes of this state as the bill provides that "This act shall take effect immediately." From now on it will be known as Chapter 834 of the Laws of 1926.

This measure has had a stormy career. Its passage never would have been secured but for the conscientious, able, indefatigable and intelligent sponsorship of the doctors of this state, who place the safeguarding of the public health as the highest aim of the profession. The bill was drafted by a Committee of the Medical Society of the State of New York appointed by President Nathan B. Van Etten in pursuance of a resolution adopted at the annual meeting of the House of Delegates held in Syracuse in May, 1925. The Committee consisted of Dr. John E. Jennings, Dr. George M. Fisher, Dr. Thomas C. Chalmers, Dr. George A. Leitner, Dr. James E. Sadler, Dr. George B. Stanwix and Dr. Frederick H. Flaherty. With a disregard of the inevitable inroads upon their time, their leisure and their strength, these gentlemen sat together for many weeks and with a patience, an open-mindedness and a public spirit which is beyond praise, after hours of debate, of research, of study and a mutual exchange of views, designed, prepared and wrote the measure which has now received the sanction of the chief executive of this state. Conferences, of course, were held with the Departments of Health, of Education and with the office of the Attorney-General, differences and inconsistencies were reconciled, constitutional and administrative objections were eliminated, so that when the bill was finally introduced into the lower chamber by Assemblyman Loomis and into the higher body by Senator Webb, the measure expressed not only the best opinion of the medical profession, but of the public health authorities, upon whom so largely will devolve the duty of administering it.

This law was written by the hand of man and nothing which comes from that source is perfect. Therefore, the proponents and advocates of this bill will not claim perfection for their work. What is claimed, however, and what cannot be disputed is, that the new Medical Practice Act is the best law of its kind which has ever been written into the statutes of our state and that it

marks an advance in the safeguarding of the public health and the regulation of the medical profession which entitles it to become a model for similar enactments in other states of the Union.

No statement concerning the new law would be complete which did not render just praise to the splendid public efforts put forth by Dr. Henry L. K. Shaw, the chairman, and Dr. Arthur W. Booth and Dr. Clarence F. Graham, the members of the Legislative Committee of our State Society, in securing its adoption. From the writer's own personal contact with these public-spirited physicians he can testify to the fine spirit, the intelligent attitude and the courageous and optimistic leadership which these true friends of the medical profession brought to bear upon the difficult, harassing and oftentimes discouraging task which they so cheerfully assumed and now have brought to a successful conclusion. Also mention should be made of the indefatigable, effective and loyal efforts put forth by Dr. Joseph S. Lawrence, the Executive Officer of the State Society.

It is needless at this time to review the various provisions of the bill, as they have long since become familiar both to the proponents and the opposers of the measure. A full discussion of its essential provisions was set forth in our editorial in this JOURNAL of March 15, 1926.

Never has a bill enlisted a more active propaganda or a more highly organized and skillful opposition from the cultists, who have spared nothing of time or money to thwart and defeat this new safeguard of the public health—men who insolently boast of the magnitude of the returns which they derive from their unlawful practice. The chiropractors and other criminals and their dupes have seen this measure coming home and prepared to oppose and to defeat it. But they have failed.

As early as the fall of 1924 Governor Smith called a conference of representatives of the State Department of Health, the State Medical Society and the State Department of Education for the purpose of considering amendments to the Medical Practice Act. In his annual message to the Legislature in 1925 the Governor called special attention to the necessity of enacting legislation which would rid this state of illegal practitioners of medicine in the interest of the public health. Thereafter a bill was prepared by the Department of Education and introduced in the legislature embodying the fundamental principles

agreed upon at the conference. That bill was supported by the State Department of Health, the State Department of Education and the State Medical Society. It passed the Assembly by an overwhelming vote, but failed in the Senate in spite of the fact that on the very last day of the session the Governor sent a strong special message urging its enactment.

"The situation," wrote Governor Smith in his memorandum accompanying his signature of the Webb-Loomis Bill, "now as at that time demands remedial legislation. Attempts made in the past have failed for one reason or another, notwithstanding the fact that it could not by any stretch of the imagination be made either a political or a partisan matter, as it concerns only the health and lives of the people of the State." "In 1926," Governor Smith continues, "I reviewed the recommendation of a year ago and recommended that legislation be enacted in order to protect the people of the State from unlicensed and unqualified persons practicing medicine. As a result of such recommendations, I have before me what has come to be known as the Webb-Loomis Bill. * * * It does provide for a better administration of the Medical Practice Act and is solely in the interest of the preservation of the health and lives of the people of our commonwealth."

The bill does not change the definition of the practice of medicine contained in Section 160 of the Public Health Law and which has been in effect for nearly twenty years. In that section the practice of medicine is defined as follows:

"A person practices medicine within the meaning of this article, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition, and who shall either offer or undertake, by any means or method to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity or physical condition."

This definition has been frequently before the courts and has been uniformly upheld. For nearly twenty years any person not duly authorized to practice medicine within this state, but who nevertheless has done any or all of the things specified in this section, has been guilty of a misdemeanor punishable by a fine of not more than five hundred dollars or imprisonment for not more than one year or both.

Under this law it has been repeatedly decided by the courts that a chiropractor not licensed to practice medicine who in anywise diagnoses, treats or prescribes for human ailments is guilty of a crime. The leading case on that subject is *Peo v Ellis*, 162 App Div 288, decided in 1914, and there are other cases upholding the same doctrine, among which are *Peo v Mulford*, 148 App Div 716, *Peo v Somme*, 120 App Div 20, *Peo v Allcutt*, 117 App Div 546.

As recently as February 24th of this year the Court of Appeals, in considering the treatment of a chiropractor declared

"The defendant had no license to practice medicine, yet he held himself out as being able to diagnose and treat disease, and under the provisions of the Public Health Law (Cons Laws, ch 45) he was guilty of a misdemeanor."

The chiropractors, with a brazenness unparalleled in the history of quackery, admit that the law is as the writer has just defined it and that they violate it. This admission was frankly made by Judge Vanderzee, the general counsel of the New York State Chiropractic Association, at one of the hearings before the Joint Public Health Committee of the Assembly and the Senate, and again in the Executive chamber, before Governor Smith at the hearing which he called on the evening of May 12th of this year, when he frankly conceded that the chiropractor who carries on his so-called profession, but who is not licensed to practice medicine, is a lawbreaker. The argument put forth by this counsel for admitted law breakers was that the Webb-Loomis Bill should not be signed because it increased the penalties for lawbreaking. When the Governor pressed Judge Vanderzee on this point, the counsel for the chiropractors was unable to give a satisfactory answer.

Let there be then no confusion on this point. The new law does not and was not designed or intended to make unlawful that which was lawful before. It was not designed or intended even to increase the penalties for lawbreaking. What it was designed and intended to do and what it does is to provide a stronger and more effective instrument for the prosecution of those who defy, flout and break the criminal law of this state prohibiting the practice of medicine on the part of those who are not qualified and legally authorized to practice it. This is what Governor Smith meant when he said

"Although no cult is licensed to practice in this State, it does not stop the practitioner of such cult from practicing the tenets of that cult by any manipulations or any other form of treatment, *provided such practice does not involve a violation of the Medical Practice Act or any other section of the Public Health Law as it existed before the enactment of this bill*."

But the practice of chiropractic does involve and always has involved a violation of the Public Health Law of this state—a fact attested by the cases we have cited and by the plain admission of the counsel for the chiropractors. In other words, the new law does not make the practice of chiropractic unlawful, because that practice already was unlawful before the enactment of this new measure and the illegality of that practice is not made more or less illegal by reason of the statute just enacted. The argument of the chiro-

practitioners, the drugless healers and other violators of the criminal law was therefore, a novel and fantastic one, it was an argument against making more effective the prosecution of their acts which they admit are criminal. This argument was justly spurned by Governor Smith. His answer to it was the signing of the bill.

Governor Smith's memorandum which accompanied his signature is a model of clear statement. This fine public servant deserves and has received the warm commendation of the doctors and of all others who are laboring to safeguard the public health. In referring to the annual registration requirement the Governor thus expressed himself:

"It requires very little explanation to show the necessity for this very wise regulation. Prior to the enactment of the Dental Law, thousands of unlicensed practitioners were practicing dentistry in this State. Some of them were unfit to practice on lead pipe, not to speak of experimenting with human beings. The annual registration of dentists threw the illegal practitioners out of the State, thereby giving to the people of our State a protection against fraud that they could get in no other way. The Department of Education records show that its ten years of experience in the administration of the Dental Practice Act and other acts relating to the professions, has demonstrated that annual registration is the most effective agency for freeing the State from imposters and illegal practitioners and of keeping it free from such violators of the law."

As time goes on we are confident that those members of the medical profession who have opposed annual registration will appreciate the justice of the Governor's observations. The burden which it entails, upon experience will be found to be negligible. We quote from our editorial of March 15th:

"The secretary of the board of medical examiners must mail, on or before October 1 of each year, to each registered physician a blank form of application for registration. The physician then has three months in which to make out this registration and send his check for \$2.00. The burden thus entailed from the financial point of view, of course, is negligible, and from the standpoint of annoyance or inconvenience it is reckoned that it will not consume more than three minutes of the doctor's time once each year. As compared with the provisions of the law requiring registration for voting, annual registration of automobiles and the innumerable other provisions which in our complicated system are now required of all citizens, this requirement for annual registration is negligible. Its value should be apparent to every one. Its purpose is not only to provide the sinews with which to enforce the public health law, but to provide and keep up to date an authorized list of licensed physicians."

In regard to the provisions of the bill requiring that prosecutions for its violation shall be conducted by the attorney-general, except in counties having a population of more than 500,000, in which the law expressly declares that "nothing in this section shall be interpreted to prevent or impede the prosecution of such proceedings by the district attorney * * * when such proceedings shall have been initiated by him," the Governor said:

"The reason for this is obvious. A violation of the Public Health Law is not a violation against a county or any other subdivision of the State. It is against all of the people of the State. A careless administration of the Public Health Law in a given locality not only endangers the lives of the people of that locality but of all the people who come in contact with them. Public health work by its very nature must be statewide to be effective."

As to the physio-therapy provisions of the law which require that "A license to practice physio-therapy shall not permit the holder thereof to administer drugs or to practice medicine as defined in section one hundred and sixty of this article, except to treat diseases under the supervision of a duly licensed physician," the Governor said:

"It will afford treatment of the sick and ailing by properly trained physiotherapists *working under the direction of duly qualified physicians*. This provision enlarges the field of treatment without the dangers incident to treatment by untrained and unqualified practitioners."

But nowhere in his memorandum does Governor Smith more clearly reveal his fine appreciation of the dignity and importance of the medical profession than in his discussion of the time-honored and jealously-guarded title of "doctor." Under the new law:

"Any person who * * * shall * * * Use the title 'doctor' or any abbreviation thereof in connection with his name or with any trade name in the conduct of any occupation or profession involving or pertaining to the public health or the diagnosis or treatment of any human disease, pain, injury, deformity, or physical condition, unless duly authorized by law to use the same, * * * shall be guilty of a misdemeanor."

No chiropractor or other unlicensed individual is authorized to use that title. Concerning the provisions protesting that time-honored title the Governor declared:

"It will protect the public from the exploitations of quacks and charlatans by regulating the use of the title 'doctor' and by the prevention of fraudulent and deceptive advertising. I regard it as highly important that the ignorant and unthinking be not misguided by the use of the title 'Doctor' because it presupposes in the minds of a

great many people a knowledge of the human anatomy sufficient to enable the holder of such title to diagnose and prescribe for all the ills the human body is heir to. The title 'Doctor' should be made by law to mean what the great majority of people believes it means, and it should not be promiscuously bestowed upon individuals so lacking in proper qualification as to be unable to tell the difference between indigestion and hydrophobia. There is no function of government to my mind more important than the preservation of the public health."

Is it any wonder that chiropractors, drugless healers and others who in disregard of law and common decency have fraudulently attached the title "doctor" to their names, who have organized an opposition to the Webb-Lomis Bill, and who have written thousands of letters to the Governor opposing it, should have come to the Executive chamber with a large following to urge the Governor's exercise of his veto power?

The enactment of the Webb-Loomis Bill marks an epoch in the history of the public health. Let us go forward under it with a determination to carry out its provisions so as to give full effect both to their letter and to their spirit. Never before has the Medical Society of the State of New York given greater vitality to the purpose for which, six score years ago, the Society was organized. Under the leadership of President Van Etten, President Fisher and Chairman Henry L. K. Shaw, the purposes of the Society as defined by the first article of its Constitution have been given a new life. Among those purposes are these

"* * * to extend medical knowledge and advance medical science, to elevate the standard of medical education, to secure the enactment and enforcement of just medical laws, * * * and to enlighten and direct public opinion in regard to the great problems of medicine."

INFECTION OF FINGER

In this action it was charged that the defendant was engaged to treat the plaintiff for a blister on the right hand, that he advised that it was necessary to operate upon the hand, and in doing so was careless and negligent, causing plaintiff's hand to become infected and the loss of use of the index finger and that plaintiff was likewise required to expend money for other medical attendance and nursing and was prevented for a long period of time from attending to a usual business of operating a restaurant.

When the defendant first saw this patient she gave a history of having several days prior lacerated her index finger and of having received several treatments at a White Cross Emergency Station, from which she received no benefit. Upon examination the defendant found the finger stiff and swollen and evidences of considerable pus. He advised an immediate incision to provide proper drainage and further advised her that if this procedure was not followed there was danger of the infection spreading to the hand and arm.

The patient consenting, the finger was incised and a quantity of pus drained therefrom. A sterile drain was placed in the wound, the finger dressed and the patient instructed to return on the following day. The next day, upon the patient's return to the defendant, she stated that she

was greatly relieved and had had the first night's sleep since the injury to her finger. Upon removing the dressings the physician found a little excessive bleeding at the upper corner of the incision. A suture was inserted which controlled the bleeding, the wound sterilized and dressed and the patient instructed to return the next day. For three successive days the patient returned to the defendant, at each of which times the dressing was removed, the wound cleansed and the finger rebandaged, the injury showing marked improvement at each of the visits. At the last of these visits the improvements was so marked that the defendant advised the patient not to return unless the finger gave her further trouble. This was the last that the defendant saw of this patient. The defendant's nurse, however, met the plaintiff on the street, at which time the plaintiff told the nurse that her finger was stiff and she did not believe that the doctor had given the proper treatment to her injury.

Shortly thereafter this action of alleged malpractice was instituted against this physician. The attempts upon the part of the plaintiff's attorney to procure a compromise or settlement met with no avail and the action was dismissed when the same was reached for trial thus favorably terminating the action in favor of the defendant.



MEDICAL SURVEY



STATE CARE OF PATIENTS MENTALLY SICK

Governor Alfred E. Smith has authorized the publication of a large illustrated pamphlet describing the expenditure of the proceeds of the fifty million dollar bond issue which was authorized at the General Election of 1923 for the State care of the sick in State institutions. Most of these patients have mental disorders, and so the object of the bond issue is popularly stated to be the care of the insane and the mentally defectives.

The burden of the wise expenditure of the bond issue falls on the physicians of New York State, and every doctor is therefore deeply interested in its hospital system. The object of this survey is to give a bird's eye view of the State Hospitals, the policies under which they are conducted, and the plans for modernizing the buildings and equipment, and the management of the patients. The survey is written from the standpoint of the physician in general practice, and will give the information which the family doctor can impart to the families of his mental cases.

People generally are ten or twenty years behind the medical leaders in their knowledge of diseases and treatments, or, to state the fact in another way, it takes ten or twenty years for a knowledge of new discoveries and medical standards to be understood and accepted by laymen. The people are a generation behind the times in their knowledge of what can be done for the mentally sick, and physicians usually have great difficulty in getting the patients and their families to accept the diagnosis of mental trouble that is plainly evident to the doctors. The popular opinion of a mental disorder is that it is a disgrace which is to be concealed as long as possible. The opinion is similar to that regarding tuberculosis twenty-five years ago. Physicians have the opportunity to change that opinion, just as they have educated the people regarding tuberculosis.

History sheds light on the popular attitude toward mental disorders. The views of the scientific leaders have developed in five stages.

1 The people of ancient times believed that an insane person was inspired by the gods, and that his actions showed that he was conversing with unseen spirits. His words, though often mysterious and unintelligible, were sometimes the fearless expression of truth whose utterance would cost a sane man his life. While this idea persisted, the church took care of the insane on the basis of their sanctity. Many

of the hermits of the Middle Ages belonged to this class.

2 The second stage of belief was that the insane were possessed of the Devil—the exact opposite of the first belief. Many of the miracles of Christ consisted in “casting out devils” from the insane, and that expression is used frequently in the New Testament. This view was the basis for the belief in witchcraft, and it still persists among the Negroes, and is present in a subconscious form among otherwise educated folk who should know better. The logical outcome of this belief was the imprisonment and execution of the insane in the belief that they menaced society.

3 The third stage of the development of the care of the insane was a softening of the implacable attitude of society, but the retention of the idea that the insane were criminals. One hundred years ago it was a legal crime to be insane, and the punishment was close confinement in irons, the same as that meted out to dangerous criminals. Jails and almshouses harbored the chained insane for whom no one seemed to have a care and whose recovery was wellnigh impossible.

4 The fourth stage was the assumption of the care of the insane by the poor-house authorities. Almshouses were fitted with padded cells in which the insane were placed in solitary confinement, which was almost as depressing as incarceration in public jails. The most that was expected from care in the poorhouses was that the patients would be given the bare necessities of life until death mercifully ended their sufferings. Yet the legal status of a mental patient was still that of a criminal.

5 The fifth stage was the recognition of insanity as a mental problem which the State alone could solve. The care of the insane by towns and counties offered little hope of success, the State alone had the resources to assemble a sufficient number of patients in one place to justify the preparation and equipment of hospitals, and the employment of specialists in mental diseases. It was not until 1890 that New York State assumed the responsibility for the care of all the insane. Let those who criticize the slowness of State officials in acting for the relief of the insane consider the fact that full provision for the care of cases of tuberculosis has not yet been made.

This history of the development of the care of the insane is revealed in the descriptive names successively applied to an institution for their

care—madhouse, poor-house, asylum, and hospital. All the institutions have been called hospitals for a decade or more, and yet many physicians still call them asylums, and the people generally call them "madhouses" or "bug" houses. Here it may be stated that the word "bug" as applied to insanity is good English. Thus, Sir Thomas More, in 1573, wrote "Lest there hap to be such black bugs indeed as folks call devils, whose torments he was wont to take for poets' tales." Bug then meant a terrifying specter, and that is what a buzzing "June bug" still is to many persons.

The persistence in the old belief regarding the State hospitals is a great handicap to doctors in their care of the insane. Old tales of the horrors of madhouses, and of the cold monotony of asylums still persist, even among educated people. The power of tradition, and the influence of childhood's tales on subconscious beliefs are more powerful and dominating than the few descriptions of modern State hospitals that have reached the people. The education of people in the principles of insanity, mental deficiency, and mental hygiene is one of the great lines of public health work in which physicians are naturally the leaders.

The State had made experiments in the care of the insane previous to 1890 when it established the policy of the care of all the insane. The honor of leadership in the modern system of State care belongs to the Medical Society of the County of Oneida which, as early as 1840, began the agitation for a State hospital for the insane which resulted in the establishment of the Utica State Hospital in 1843. The Utica institution was designed for the care of acute cases which were recognized as curable, and were transferred to it from the county almshouses. The next State hospital to be established was the Willard State Hospital at Willard, Seneca County, in 1869, for the care of the chronic cases. From these small beginnings has come the present system consisting of fourteen hospitals already in operation, and also two for the criminal insane.

There are also 28 private hospitals licensed to receive insane cases. Their capacity varies from 3 to 270, and the total number of beds is about 1,500. Only five of the private institutions have capacities of over 100 each.

The thirty-six years that have elapsed since the adoption of State care for the insane have seen great advances in the knowledge of the nature of mental disorders and in the methods of treatment. What was obscure a generation or two ago is now plainly evident. Diseases of the mind, like those of the heart, are now recognizable in their early stages while they are curable, and to enter a mental hospital is no longer a life sentence.

TABLE I

Table of State Hospitals for the Care of the Insane

Name	Location	Year of Establishment	Normal Capacity	Number of Cases on Jan. 1, 1926
1 Utica State Hospital, Utica		1843	1,279	1,924
2 Willard State Hospital, Willard, Seneca Co		1869	2,091	2,669
3 Hudson River State Hospital, Poughkeepsie		1871	3,338	4,136
4 Middletown State Homeopathic Hospital, Middletown		1874	2,135	2,580
5 Buffalo State Hospital, Buffalo		1880	1,866	2,478
6 Binghamton State Hospital, Binghamton		1881	2,383	2,886
7 St. Lawrence State Hospital, Ogdensburg		1890	1,621	2,373
8 Rochester State Hospital, Rochester		1891	1,298	1,995
9 Brooklyn State Hospital, Brooklyn		1895	1,033	1,822
10 Central Islip State Hospital, Central Islip		1896	4,248	6,031
11 Kings Park State Hospital, Kings Park		1896	3,471	5,401
12 Gowanda State Homeopathic Hospital, Helmuth, Erie Co		1898	859	1,405
13 Manhattan State Hospital, Wards Island, N. Y. C.		1905	4,847	7,125
14 Harlem Valley State Hospital, Wingdale, Dutchess County		1924	300	272
15 Dannemora State Hospital, Dannemora, Clinton County		1896	538	571
16 Matteawan State Hospital, Beacon Dutchess Co		1892	657	975
TOTAL			30,769	44,643

Slowly, a correct attitude is being developed toward accepting treatment, and patients are beginning to go to the hospitals voluntarily for examination and treatment just as they go to tuberculosis hospitals for incipient infection, and to general hospitals for pneumonia or appendicitis. This approaches the ideal state of mind toward the State hospitals.

The existing hospitals are the results of evolution from small beginnings, when the principal object was to provide asylums for detention rather than hospitals for treatment and cure. When a hospital became overcrowded, additional buildings were erected, and the old ones retained, but construction has never kept pace with the over-crowding, even according to asylum standards, until now the hospitals have 28 per cent more patients than they were designed for, and the crowding would be even worse except for the fact that patients are often discharged long before their progress is considered likely to be permanent. Not only should patients be admitted to the hospitals in earlier stages of sickness, but they should be kept there for longer periods, and not be turned out in a stage when their return is fairly certain.

Much has been written about the great increase in the numbers of the insane. The question arises—is the increase due to a greater proportion of the people becoming insane? or is it due to the increasing number who accept early treat-

ment and are eventually cured? No matter how the question is answered, all agree that the peak of numbers who would be benefitted by State hospital care has not been reached, and that more beds are urgently needed, and will be needed throughout the present generation of time.

The previous system of construction has not only produced buildings unsuited to modern standards of treatment, but it has also prevented the development of a scientific organization of the medical staff. Efficiency of treatment requires that the physicians be organized in groups or services, each with complete medical facilities for making complete examinations, physical as well as mental, and for giving all forms of common treatments. Moreover, comfortable living quarters for the doctors, nurses, and attendants are necessary in order that those in charge of the patients may render the best service. The requirements of the medical service are well set forth in a pamphlet by a committee headed by Dr. George H. Kirby, Director of the Psychiatric Institute of the New York State Hospitals. The committee made a report on October, 1924, and made fifteen recommendations on the following topics, which apply to each hospital:

- 1 A reception service for receiving and studying new cases
- 2 A diagnostic clinic
- 3 A service for the treatment of general medical and surgical conditions
- 4 Improved nursing service
- 5 An increased number of physicians per patient. At least one physician is required to

9 The performance of central staff duties by the personnel of each service

10 Each medical service to be a unit in keeping records

11 Unified dental service

12 Staff meetings in general medicine as well as in mental diseases

13 Liberal appropriations for medical and surgical supplies, including medical books

14 The development of social service work in following up paroled cases

15 The standardization of methods for all services whereby the best of each may be adopted by all. The committee, however, recognizes the difficulty of accomplishing this ideal in the present buildings.

These recommendations are not idealistic. They are made by a committee of practical men who have seen the features already introduced into several hospitals, no one of which has been able to adopt even a majority of them on account of the physical limitations of the buildings. To change the buildings and increase their capacity will cost money which will be supplied by the fifty million dollar bond issue.

MENTAL DEFECTIVES

In addition to the insane, the State cares for its mental defectives. It is estimated that New York State has 50,000 mental defectives who require supervision, and that 10,000 of them are unsocial to such an extent that they require treatment and restraint in public institutions. The State now maintains four large institutions for the reception and care of mental defectives, as will be seen from the accompanying table.

TABLE II
State Schools for Mental Defectives

NAME	LOCATION	Year of Opening	Normal Capacity	No of Inmate, July 1, 1925
Syracuse	Syracuse	1854	700	627
Rome	Rome, Oneida County		1,350	1,607
Newark	Newark, Wayne County	1878	900	1,126
Letchworth Village	Thiells, Rockland County	1911	1,700	1,837
TOTALS			4,650	5,197
On parole				958
In colonies outside of schools				1,060
Total mental defectives under State care				7,215

every 150 cases, but some doctors are trying to care for 1,000 cases.

6 More visiting specialists in internal medicine, surgery, urology, orthopedics, gynecology, and so on through the whole list.

7 A clinical director of all medical services and the helpers in them.

8 Standardization of the medical equipment for each service.

The care of mental defectives has undergone an evolution similar to that of the insane. The immediate problem in construction in each instance has been to provide an asylum for the segregation of a particular kind of case. The first institution to be established was a small one in Albany which was started in 1851. It was transferred to Syracuse three years later, and is now maintained as one of the large institutions of the State.

The State institutions for mental defectives were under the supervision of the State Board of Charities until the year 1919, when the State Commission for Mental Defectives was established. This Commission was given duties and powers which were largely similar to those of the Hospital Commission which controls the hospitals for the insane.

The present policy of the State is to develop each institution into an all-around school in which all kinds of cases will be taken, as in the State hospitals for the insane. While the care of mental defectives is a medical problem similar to that of the care of the insane, yet between the two types of institutions there is a real distinction which is expressed by the word "school" in relation to mental defectives and hospitals in relation to the insane. Each institution for mental defectives is called a State School for Mental Defectives, preceded by the name of the place in which it is located. Thus, the title of the School in Newark is the Newark State School for Mental Defectives. However, the one in Rockland County is still called Letchworth Village.

Each State School for Mental Defectives will receive cases of all kinds, degrees and ages. Each is a school in fact, in which the inmates are taught useful trades, and prepared to take positions as household workers, farmers, and mill operatives. When they are sufficiently skilled, they are paroled under the care of competent persons. The Syracuse School accepts only those who are capable of responding to training, but the others accept incurable cases also.

A system of colonies of the inmates designed by Dr. Bernstein, Superintendent of the Rome State School, is in operation in connection with several of the schools. The plan is that a group of from ten to twenty inmates shall be lodged in a house in an industrial center, and from which they shall go out to work for hire. The wages which they earn is credited to the inmates as a saving bank account which is donated to them by the State. The Rome State School has 32 such colonies at which the boys and girls live normal lives and have the self-respect which goes with the ability to earn money for themselves.

The building program for the care of mental defectives consists of the establishment of a new institution at Wassaic, Dutchess County, which shall be similar to that of Letchworth Village and the enlargement of the present institutions so that a total of 10,000 patients may be kept in-

stead of the 5,000 as at present. The money for these extensions will come from the fifty million dollar bond issue.

UNIFICATION OF ADMINISTRATION

The new law for the administration of the State hospitals and schools groups both in a single department called the Department of Mental Hygiene under a Commissioner. The Department will have three divisions, those of hospitals, schools, and clinics, each under an associate commissioner.

The method of committing patients to the institutions will also be unified, and every doctor who is qualified as an examiner for the insane can also make examinations for mental deficiency, and certify to their need of commitment to a school. Physicians will no longer be in doubt regarding who has jurisdiction over a case, for the same commissioner will handle all cases growing out of mental abnormalities.

CLINICS

The program for the care of the mentally sick would be entirely inadequate if it embraced only the fully developed cases. The great hope of stemming the rising tide of insanity and mental defects consists in prevention while the abnormalities are in a preventable or curable stage. The State has maintained a system of clinics for several years, but has not provided the personnel for carrying on the clinics in a proper manner. The burden of conducting the clinics has fallen on the hospital staffs who already are overworked with the care of the patients who are in the hospitals. Yet the system has been demonstrated to be a great success. Over one fifth of the cases in the Utica State Hospital enter the institution as voluntary cases as the result of advice given to them at clinics. This might seem to indicate that the clinics are filling the hospitals with cases which might not need to go there. But on the other hand, the cases go out practically cured after a short time. After the system is well under way with State-wide control, the great number of advanced cases will probably be much reduced, and there will be an end to the race of constructing new hospitals fast enough to take care of the increasing number of cases.

The State Commission for Mental Defectives also conducts clinics. During the year ending June 30, 1924, clinics were held in 23 centers at which 1,051 cases were examined.

DELINQUENT MENTAL DEFECTIVES

The State supports six institutions for the isolation and care of mental defectives who have criminal tendencies. These are listed in Table 3. A physician who is consulted about a boy or girl, or even an adult in this class, can assist in securing the proper care for the case by obtaining a full history of the case and by using his influence with the parents or relatives to permit the case to be sent to the proper corrective institution. While the institutions are places of detention, yet they are also schools, and in fact some of them are called schools and all should be so named.

den rests on the medical profession to reduce the great cost of the care of the mentally abnormal, and in addition to convert them from a liability to a productive asset. Physicians can do this by taking a more active interest in the art of treating mental diseases. Only one insane person out of thirty is being treated in private institutions, but this may be misleading because many "nervous breakdown" cases who go to private sanatoriums receive treatment which prevents insanity.

Doctors have complacently permitted and even welcomed the entrance of the State into the medical field of psychiatry. A considerable degree of

TABLE III
Institutions for Delinquents

NAME	LOCATION	Year of Opening	Normal Capacity	Number of Cases Present
State Agricultural and Industrial School	Industry, Monroe County	1849	720	689
New York Training School for Girls	Hudson, Columbia County	1893	369	388
New York State Reformatory for Women	Bedford, Westchester County	1901	400	
Western House of Refuge for Women	Albion, Orleans County		200	203
New York House of Refuge	Randalls Island, New York City	1825	1,000	437
Institution for Defective Delinquents	Napanoch, Ulster County		716	487

EPILEPTICS

Craig Colony at Sonyea, Livingston County, was opened in 1896 and is designed for epileptics only. It has a capacity of 1,500 and a present population of 1,580.

ADDRESSES

Physicians wishing information can obtain it by addressing the organizations shown in Table 4.

State medicine is necessary for the control of the insane and mentally deficient, because conditions, socially, economically, and legally require it. But a great deal can be done by the early recognition of cases by family doctors and their treatment while they are in the stage of "Nervousness" which the patients themselves can control with the aid of the family doctor. Every person who is becoming insane goes through a preliminary stage when he is nervous, or sleepless, or excited, or

TABLE IV
Organizations Assisting Physicians in Cases of Insanity and Mental Deficiency

KIND OF CASE	NAME OF ORGANIZATION	ADDRESS
Insanity	State Hospital Commission	Albany, N. Y.
Mental Deficiency	State Commission for Mental Defectives	175 Fifth Avenue, N. Y. C.
Social, Economic and Legal Points	State Board of Charities	Albany, N. Y.
Social Service and General Advice for Defective Children	State Charities Aid Association	East 22nd St., N. Y. C.
Educational	National Committee for Mental Hygiene	370 Seventh Avenue, N. Y. C.

WHAT MAY BE EXPECTED FROM THE BOND ISSUE

The present overcrowding of State institutions is something over 10,000 patients. The bond issue of fifty million dollars will just about take care of this overcrowding. The plan is to expend it over a period of four years.

The annual increment of excess of patients over the capacity of institutions is about 900, and so in four years there will still be a deficiency of 4,000 beds in the State hospitals and schools. But the increased efficiency of care should have marked effect on reducing the number of cases requiring hospital care.

DUTY OF PHYSICIANS TO PRACTICE PSYCHIATRY

The cost of the care of the insane and mental defectives is the third in the list of expenses of New York State, and is exceeded only by the appropriations for highways and schools. A bur-

melancholy, and is conscious of his condition and seeks relief from his family doctor. But the physician too often dismisses the patient and tells him he is merely "nervous." Of course he is nervous—that is what he came to see the doctor about, and the relief of the condition is the practice of preventive psychiatry.

The campaign for the periodic examination might well include the practice of preventive psychiatry as one of its objects.

There is a burden upon psychiatrists to simplify their teaching of the art of practice on mental cases. The field of mental diseases is almost as broad as that of physical ailments, but still there are a few fundamental points in mental pathology just as there are in physical pathology. A psychiatrist will yet arise who will simplify and clarify, and glorify the art of the practice of psychiatry within the comprehension and desire of the family doctor.

SOCIAL SERVICE IN MENTAL HYGIENE

By HOMER FOLKS, Secretary
State Charities Aid Association, New York

The State Charities Aid Association, which organized the County Committees on Tuberculosis and Public Health, is no stranger in the field of mental hygiene. In fact, since its organization in 1872, one of its constant objectives has been better care and wiser dealings with the insane and feeble-minded. Whatever may be the obscure origins of various types of mental disease and deficiency, their development brings immediately in its train most important social consequences, to the patient, and to his family and community. Nothing more completely wrecks family life from an economic, educational, and humane point of view than mental disturbance. In its early stages, it leads to baffling misunderstandings, to increasing discord, to diminishing income, and hastens rapidly toward catastrophe. When the condition is recognized for what it really is, the family situation must be wholly readjusted. Likewise, when the patient recovers, he returns to a family circle which is very different from that which he left. Standards of living have radically changed, responsibilities for income production have been shifted to other shoulders. To re-establish himself in a new and altered household would test the mettle, in many cases, of an entirely well and exceptionally balanced person, for the convalescent patient, fresh from the routine of hospital life, released from daily medical supervision, assuming again burdens from which he has been wholly free for months or perhaps years, the problem of readjustment is Herculean.

It is rather surprising that the recognition of the necessity of social service in, so to speak, binding up the wounds of the mentally disturbed patient, in re-establishing ties that have been severed, in regaining a status in family, community, and economic life, has come so late. It is, in fact, just twenty years ago that "after-care for the insane" was established in this State, as something of a pioneer experiment in America. It began, as many other social innovations have begun, in a voluntary way, but at the request of, and with the full cooperation of the public authorities. The State Hospital Commission requested the State Charities Aid Association to organize local Committees of citizens to assist patients released on parole, or discharged as recovered, to re-establish themselves in their communities. Several of these Committees were appointed, some working wholly as groups of volunteers, others, in the larger centers, employing trained social workers. The demonstration period was brief. In a very few years the success of the undertaking, from a humanitarian and from a financial point of view, was evidenced. Patients could be released from State Hospitals

considerably earlier, the cost of new construction could be considerably reduced, the census of the hospitals with its high per capita cost could be diminished, so the State, itself, was authorized to employ "field agents," as they were at first termed, in connection with each State Hospital, working with physicians from the hospitals in holding clinics in various centers in the hospital districts, primarily for patients on parole, but also to advise and assist patients whose disease had not as yet required commitment, in the hope that in some cases commitment might be prevented altogether, and that in others, dependable diagnosis and helpful treatment might begin at a much earlier date. A little later on the State adopted a ratio of one field worker to every one hundred patients on parole, and automatically increased the number of field workers from year to year in ratio with the growth of the parole system. At the present time, there are some forty field workers connected with the thirteen hospitals. Their work is wholly extra-mural, and they represent a constructive social force of the highest value.

In regard to the feeble-minded, there is, as yet, only the merest outline of a State system of home supervision, but here, again, voluntary agencies are supplementing and leading the way for what we may hope will become a much more highly developed State system.

This brief article set out to describe the work of the State Charities Aid Association County Agents for Dependent Children. In considerably more than half of the counties of the State, the State Charities Aid Association has appointed a local Citizens Children's Committee, which has entered into contractual relations with the Board of Supervisors. The Children's Committee employs a trained social worker, known as the County Children's Agent, provides an office, a telephone, and means of transportation, the Board of Supervisors makes a grant toward these purposes, and the Citizens Committee raises the remainder. The agent is given such official status as need be, but does not depend particularly upon official relationship. She is often made an assistant to the County Superintendent of the Poor, a Probation Officer of the Children's Court, an Investigator of the Board of Child Welfare (Widow's Pensions), but, in fact, she is, as a rule, the only trained worker in the county dealing with needy children, and when any child is in trouble, everyone naturally turns toward her for information and advice. Her job is simply to see that every child who gets into trouble or need receives as nearly as may be, the particular kind of help which that child in that particular

family needs, and to see that the child gets it quickly

Naturally, a good many of the children who get into trouble are more or less mentally deficient, so that any County Children's Agent becomes, in considerable degree, in fact, a County Agent for the Feeble-minded. She must depend very largely upon professional advice. She must secure medical examinations of these needy children, and also psychological tests and mental examinations. When these medical examinations have been made, the mental tests given, and, when need be, an examination by a psychiatrist secured at a State Mental Clinic, it is up to the agent to see that whatever needs to be done, is actually done. This is where the hard part begins. Many are they who are willing to give good advice and very necessary information, but those who are available for help in the subsequent social service are relatively few. She must be a resourceful person, widely informed, gentle and sympathetic in approach, discreet, able to receive and hold confidence, not visionary, adaptable to all situations, not above the many menial tasks and disagreeable things which constitute so large a part of social service for the mentally deficient.

In this inclusive assortment of social tasks,

these County Children's Agents receive daily invaluable assistance from the medical profession, practically without exception, their services in diagnoses and advice are given freely and constantly. The notable success which has attended the work of these County Children's Agents would have been impossible without such co-operation. The necessity for understanding and mutual helpfulness has been so obvious that it has not awaited any action on the part of the State headquarters of the local groups concerned.

To the physicians, it has been a great relief to have available the services of a trained social worker, who could take up the tangled threads of a mentally deficient personality and bring such order and stability and development into the situation as the patient's endowment permitted.

We are only on the threshold of the development of early diagnosis of mental deficiency, and of sympathetic and effective service, medical and social, to the end that each of the mentally deficient may be saved from serious catastrophe, and may realize for himself and his community the most that his talents permit. In the working out of such a broader and more effective program, the local physician and the County Children's Agents, with their intensive experience, will undoubtedly lead the way.

THE NATIONAL COMMITTEE FOR MENTAL HYGIENE

By GEORGE S STEVENSON, M D

Certain organizations have been developed to care for the problem of mental hygiene in its various phases. These organizations are clearing houses for knowledge on the subject and the conditions existing in their territory. The New York State Hospital system is organized to care for those who have already recognizable mental deviations. A similar system treats similarly of the feeble-minded. These deal with end results. New York, as is the case with some other states, looks as well to prevention, and so, as a branch of the State Charities Aid, there has been developed a mental hygiene division to look after this phase. The National Committee for Mental Hygiene is an organization of similar interests, national in scope. It is prepared to offer to physicians several services whereby in part it hopes to help prevent mental disease. Its quarterly journal of Mental

Hygiene presents the latest reports on mental hygiene problems and a critical review of the literature. Pamphlets and reprints are available at a nominal cost. The library is equipped to furnish bibliographies on special topics and reading lists are available. A list of the psychiatric facilities of any district can be furnished, assistance is given in organizing mental hygiene societies or study classes. Personal consultation is possible and advice given in the planning of post-graduate courses. The Committee offers several fellowships in psychiatry. The National Committee needs the support, cooperation and active interest of the general practitioner as a leader in his district. It tries to give in return something that will meet his needs.

The headquarters for the National Committee for Mental Hygiene is at 370 Seventh Avenue, New York City.

NEWS NOTES

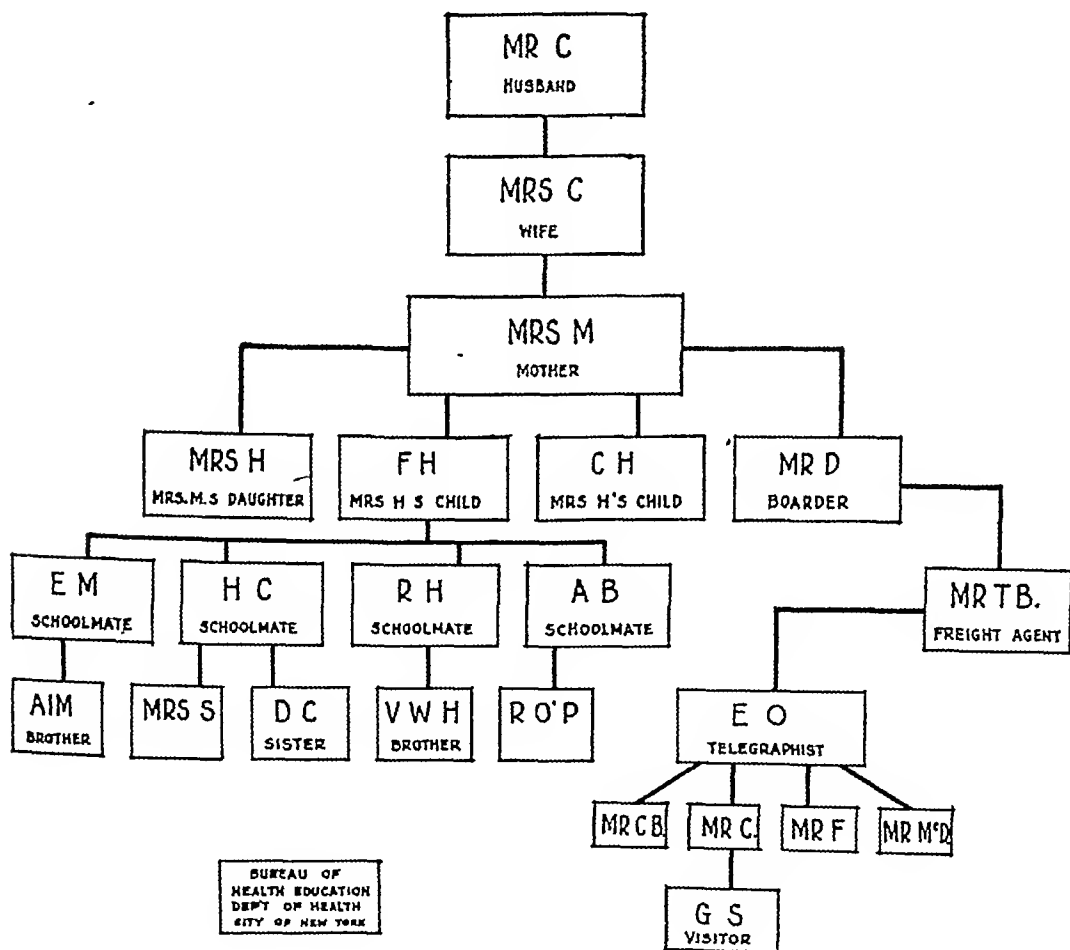
IT SPREADS LIKE WILDFIRE

From the Weekly Bulletin, New York City Department of Health, April 17, 1926

The test of the pudding is in the eating—and that of smallpox in the spreading—among the unvaccinated. Below is a graphic chart presenting the ramifications of infection among a group of unvaccinated, the original source of infection being traceable to Mrs C, the wife

quarantine and vaccination. This incident, however, not only illustrates the wildfire character of smallpox, but also the menace to public health of the unvaccinated.

Not one of the cases listed had ever been successfully vaccinated. Had not smallpox been



of a traveling salesman, who, coming from Canada, brought with her a ripe case of smallpox. From this single source of infection 22 persons contracted the disease. How many more might have developed smallpox is impossible to say, for thanks to the vigilance of the doctors and health authorities, the spread was checked by

introduced into their midst they would have lived on without ever suffering the disease, but once the infection was introduced into their midst it spread like veritable wildfire. The warranted deduction is all too evident. *Vaccination for individual and public safety!*



NEWS NOTES



THE SENECA COUNTY MEDICAL SOCIETY

The semi-annual meeting of the Seneca County Medical Society was held at the Citizen's Club, Seneca Falls, on Thursday, May 13th

The morning business session was followed by a luncheon at the Gould Hotel after which the Society reconvened for a scientific session

Dr J M Swan, in charge of the publicity work in New York State of the American Society for the control of cancer, spoke on the role of the private physician in the early diagnosis and prevention of cancer. A very interesting discussion, led by Dr Elliott, followed Dr Swan's remarks.

The Society was then addressed by Dr John R Williams of Rochester, who spoke on High Blood

Pressure. Dr Williams gave the modern conception of high blood pressure, spoke interestingly of the experiments he carried out while in Toronto and of the treatment of patients with this condition, emphasizing especially keeping these patients within normal weight limits and giving them plenty of rest. He spoke of associated conditions of nephritis and arterio sclerosis and emphasized the importance of the specific gravity of day and night urine as indicative of serious renal impairment if it does not vary.

Dr Lester W Bellows, Waterloo, N Y, read a very interesting biography of Dr Coventry, the second practicing physician of Seneca County.

NASSAU COUNTY NEWS

The physicians of Glen Cove, Nassau County, wish to publish their appreciation of their late colleague, Dr E Raymond Schilling, who died at the age of thirty-six on April 24, 1926, from pneumonia following an apparent convalescence from septicemia acquired in his line of duty.

Dr Schilling was patriotic and public spirited,

and had the respect and confidence of the medical profession and the community. He served three years in the State Guard and over two years in the Navy during the World War. He was active on the staffs of the Glen Cove and the Nassau Hospitals.

BRONX COUNTY MEDICAL SOCIETY

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on April 21, 1926, was called to order at 9 P M, the President, Dr Cuniffe, in the Chair.

The Scientific Program proceeded as follows:

Dr A Lobell presented a Lantern Slide demonstration of A New Method of Irrigating the Sphenoidal Sinus.

Dr William H Park read a paper on "Our Present-Day Ideas of Scarlet Fever." Dr Abraham Zingher and Dr I H Goldberger discussed this paper and the discussion was closed by Dr Clark.

Dr Louis I Harris, Commissioner of Health of the City of New York, addressed the Society on the general subject of Public Health, dealing with the problems of Preventive Medicine, Public Health Education, Periodic Health Examinations and Milk Inspection. Dr Harris further emphasized the need of the Bronx Health Department being housed in suitable quarters, which should be the Health Centre of the Bronx, and suggested that it might be the headquarters of the Medical Profession of the County as well. He strongly urged the active participation of the Society in this problem.

Election of candidates being in order, it was moved and carried that the Secretary be instructed to cast one ballot for the following candidates for membership: Morris I Knoppfelmacher, Maurice S Rosen, Felix R Sabatini, Aaron Scheffan, Nathaniel Uhr.

Dr Friedman presented the Report of the Committee on Public Health and Medical Education with particular reference to the subjects of Public Health and Periodic Health Examinations.

It was moved and carried that the Society go on record as favoring an appropriation for the building of suitable quarters for the Health Department of the Bronx, as suggested by Commissioner Harris, and that this matter be referred to the Comitia Minora to study ways and means of furthering this project.

The Committee on Legislation reported that the so-called Chiropractic Bill was defeated both in the Senate and the Assembly. The Medical Practice Act has been passed by the Senate and Assembly and will go to the Governor for his signature.

It was moved and carried that the Bronx County Medical Society extend a vote of thanks to Dr William H Park and Dr Louis I Harris.



THE DAILY PRESS



CLIMATE AND HEALTH

The weather is popularly believed to have a great effect on health, but a "change of climate" is now prescribed far less frequently than formerly. Some excellent authorities even advocate a climate that is changeable, because the changes are stimulating rather than depressing. The New York *Herald-Tribune* of February 24 quotes an interview with Dr. Charles H. Mayo, as follows:

"People who run South when the frost makes pictures on the window panes are jeopardizing their health", according to Dr. Charles H. Mayo, surgeon, of Rochester, Minn. The famous man had just returned yesterday from a West Indies cruise on the North German Lloyd liner *Columbus*, but he does not consider a trip like that comparable to loafing in Florida.

"People living in the temperate climes need the weather changes to keep their bodies functioning properly, he feels, for they need certain things indigenous to the sections in which they live.

Only to those who are in bad health should the advertisements for wintering in the South apply, he holds.

"He held up the mail man as a shining example of what exercise, good eating and fidelity to the home town can do for a man. The American mail man, he believes, is the healthiest of all the people in the country. He has to walk a lot, carry burdens which exercise muscles that walking does not touch, eat more or less frugally because of his wages and travel but little. These things make him what he is, Dr. Mayo said.

"The human body to Dr. Mayo, who has seen it in all of its worn out state, is not an imperfect piece of mechanism. He has seen many men he regards as physically perfect, and always they are men who exercise well and eat carefully.

"We are still digging our graves with our teeth," he said, when emphasizing the importance of diet."

DIETARY HABITS

Food and infection are by far the leading causes of sickness and disability. Those operating less frequently are fatigue, accidents, and malignant new growths.

Food and infection often operate together, but food alone may also produce sickness and disability.

Food habits are among the most persistent characteristics of both individuals and races. Unreasoning likes and dislikes are dominant factors in choice of food to such a degree that they are likely to over-ride all considerations of health.

Fashions in foods and eating places come and go like those in dress and the theatre, but there is constant progress in the healthfulness of prevailing diets. Six points of comparison may be made between present-day diets and those of a generation ago.

1 Quantity. It is now fashionable to have small portions exquisitely served, rather than overflowing dishes which invite overindulgence.

2 Variety. All kinds of food may now be obtained throughout the year. The vitamins of fresh fruits and vegetables are as available in winter as in summer, and the incipient form of scurvy, called "spring fever" is now seldom seen.

3 Composition. Present day diets contain an excess of carbohydrates, as compared with pro-

tein of rich meat dishes of a generation ago. Sugar rather than meat is now the object of warning in dietary advice. Ice cream and candy are the foods which people today use to excess.

4 Quality. Food of all kinds are now fresh, crisp, and tasty, in contrast with the wilted undesirable vegetables and fruits of a few years ago. Cold storage has enabled producers to conserve great reservoirs of perishable foods during seasons of plenty for use through periods of new production.

5 Purity. Foods are now what they are claimed to be, and adulterations are uncommon. In fact, food is too pure—for example, white bread and polished rice.

6 Infection. Food is handled in a clean manner, and an increasing proportion of the handlers are examined for the detection of carriers.

The effects of modern dietary habits are plainly seen in the people who walk our streets. The babies in the go-carts are well-nourished and alert, and boys and girls are sturdy and active, and young matrons are fair and plump. Poor nourishment is seldom seen, but rather slimness is usually desired on the ground that it is unusual and is a distinction. Only among elderly people are the marks of dietary indiscretions seen, for those who have been brought up under the newer fashions of eating have not yet had time to reach old age.

The response to both errors and correctness in diet is rapid and pronounced during the two extremes of life. Babies and youths react quickly to their foods, and the aches and nervousness and insomnias of elderly people yield to diet better than to any other therapeutic measure.

Young adults are relatively immune to the effects of errors of diet. They can gorge themselves with sweets and ice cream for twenty years, but then comes the day of reckoning when nature demands the penalty for disobedience to her laws of nutrition and excretion. Rare indeed is the person over fifty who is not annoyed with "rheumatism" or other form of punishment for dietary sins committed through early adult years.

Eating houses reflect modern enlightenment regarding diet. One chain of ubiquitous restaurants prints on its menus the number of calories contained in the portions that are served—a most valuable public health measure. Moreover, the changing fashions in eating, like those of dress, tend to more healthful living.

These reflections are inspired by an editorial entitled "Modes of Eating," in the May 17th issue of the *New York Sun*, which reads as follows:

"Fashions in eating change so rapidly in New York that getting food sometimes seems unimportant compared to the manner in which it is obtained. Only a short time ago the arrival of the delicatessen restaurant was celebrated. In this aromatic retreat it was possible to select the kind of cold meat or sausage, salad or cheese that seemed most appetizing and eat it then and there on the tables provided in more or less elaborate dining rooms instead of buying and taking the viands home or surreptitiously munching them on the street or in the shop.

"The delicatessen restaurant removed this informality and made it possible to enjoy the slice of cold ham or beef, potato salad or coleslaw,

American cream cheese or Camembert, in something like appropriate surroundings. The definite arrival of the new type of eating house was duly noted and appreciated.

"It followed, to be sure, a variety of other eating places. There was the dairy lunch, which gradually extended its offerings until milk and cereals became a negligible part of what it had for the hungry New Yorker. Then there was the rotisserie, with its fowls and meats browning on the spit. The automat taught the delight of watching one's money do its work by opening the compartment in which the dish revealed itself as in a show window waiting to be enjoyed.

Service has become the slogan of more than one man and society today. It took the well-established reign of the cafeteria to teach the delights of self-service at meals. The tearoom took its place in the list and improved so much on its original purpose as to sell course meals at fixed prices.

"Now it is the sandwich shop which strikes the latest hour in the facilities that our citizens have for their sustenance. It is likely to be described as "Ye," although that form of the definite article had gone out of use long before the reign of George III, in which the Earl of Sandwich, who gave this casual food its name, held sway. Thrifty of time if not of pelf, he ate as he played. It might be thought that the population has suddenly decided that no other form of food is wholesome. Whatever the reason, the sandwich shop has become the latest form of taking nourishment on the wing."

Regarding the derivation of the word "sandwich," the *Century Dictionary* says: "Named after John Montagu, Fourth Earl of Sandwich (died 1792) who once spent twenty-four hours at the gaming table without other refreshment than some slices of cold beef placed between slices of toast."

SMALLPOX

The *New York Sun*, May 24, contains the following excellent editorial on smallpox in the United States:

"With all the States except Utah accounted for the American Association for Medical Progress reports that health authorities in the United States recorded 43,193 cases of smallpox in 1925. Only one country in the world has a worse record, that is India. India has more inhabitants than this country, but this country has a much higher plane of living than India. The facts are not in any degree creditable to the United States."

"There is nothing sectional about the distribution of smallpox, there is nothing mysterious about its incidence. It occurs where the completely established efficacy of vaccination to prevent it is ignored, where proper sanitary measures are not adopted. If Rhode Island had enforced vaccination as the other New England States did it would not have had nearly a hundred cases in 1925, if other States lived up to the same standard they would not have such disappointing records as they have."

BOOK REVIEWS

DISEASES OF THE HEART By SIR JAMES MACKENZIE, F.R.S., M.D., F.R.C.P. Fourth Edition Royal octavo of 496 pages with 342 illustrations London, Humphrey Milford New York, Oxford University Press, 1925 Cloth, \$9.00 (Oxford Medical Publications.)

The fourth edition of Mackenzie's work on the heart is an entirely new book. It was completed shortly before his death, and is published posthumously. The author has always been known as an original observer and thinker and a vigorous writer. For some years before his death he was engaged in an endeavor to simplify and clarify methods of investigation. He states that there is such an array of unrelated physiological and clinical data being industriously turned up by research workers that no one could possibly assimilate them and that they are simply adding to the confusion, that what is needed is a more profound study of elementary process, so that all clinical phenomena can be reduced to the terms of a few fundamental laws. So equipped, the physician would be able to accurately ascertain the diagnosis, gauge the prognosis and plan the treatment in any given case. Mackenzie particularly stresses prognosis.

Every thoughtful medical worker will have much sympathy for this ideal, and no doubt this vigorous statement of the problem and the author's enthusiastic attack upon it will stimulate fruitful work upon basic functions that we should know more about. We are inclined to suspect, however, that Mackenzie, sensing that he was saying his last say, threw into his argument more emphasis than he would have employed had he expected an opportunity for rebuttal. Always impatient of opposition, in this last word he has so vigorously attacked the whole medical profession, their minds and their methods, that the medical reader must promptly throw up his hands in surrender—or put them up in defense.

So—the reviewer finds himself compelled to dissent from the opinion that medical research as now conducted is a waste of time, while admitting the advantage of further study of elemental processes. Turning to the author's own contribution along these lines, we find that his argument is largely based upon a so-called "physiological axiom," which is qualified with a "probably" the first time it appears, the qualification being soon forgotten as the superstructure of argument is developed. This refers to the statement that of the two phases of cell life, periods of discharging energy and of renewing energy, that the latter is variable, while the former is "probably" constant. (p. 52.) The assumption of the universality of this rule does not seem warranted.

A master key for the explanation of all symptoms is offered in "the principle of the reflex arc," which means that in considering the pathological activity of any structure, its controlling or modifying attachments should be scrutinized. A very illuminating reminder, but his corollary that the structure itself should be disregarded is certainly illogical (vide the discussion on the nature of auricular fibrillation, p. 185).

The genetic system, which is discussed at length, is held responsible for most of the ills the heart is heir to. Of its functions, one of the most important is a mysterious property called "control." Explanations using this word do not explain.

From such bases the author comes to many conclusions which differ radically from accepted current opinion, which are certainly unproven, and which appear unlikely to be true.

On the other hand, the book abounds with flashes of

wisdom, gleaned through many years of careful clinical study—a method which the author deprecates as wasteful of time and unnecessary. We appreciate them none the less, particularly from the center of some thicket led into by one of his short cuts. T. H.

SWANZY'S HANDBOOK OF THE DISEASES OF THE EYE AND THEIR TREATMENT Thirteenth Edition. Edited by LOUIS WERNER, M.B., F.R.C.S.I., Sen. Mod. University of Dublin. Surgeon to the Royal Victoria Eye and Ear Hospital. Illustrated. P. Blakiston's Son & Co., Philadelphia, 1925 Price, \$6.50

This very excellent book has reached its thirteenth edition, which is a good measure of its worth. It is the opinion of the reviewer, that it is the best reference book on the eye of a handy size. Sir Henry Swanzy, the original author, died after the publication of the tenth edition. Since then Werner has continued to edit the succeeding editions. He has very evidently endeavored to keep it up to date and abreast of the latest knowledge of ophthalmology.

There has been no great change in the text in this latest edition from the preceding one. The principal change noted is the grouping of the Diseases of the Iris and Ciliary Body in one chapter, and those of the Choroid and Retina in another. This is a more logical arrangement to our mind than that in the preceding edition.

It is excellently printed and well bound.

CHAS. A. HARGITT

THORACIC SURGERY The Surgical Treatment of Thoracic Disease. By HOWARD LILIENTHAL, M.D. Two octavo volumes totaling 1,294 pages, with 90 illustrations, 10 in colors. Philadelphia and London W. B. Saunders Company, 1925 Cloth, \$20.

As we view these volumes both the author and the publisher should have the satisfaction that results from hard work well done.

The scholarly mind of the author and his wide experience and special training in thoracic surgery have left their indelible impression. Dr. Lilienthal has been fortunate in securing the co-operation of many of the best known authorities of the country in the preparation of special chapters.

Evarts Graham writes on Physiology, Jaches on Roentgenology, Branower on General Anaesthesia; Ottenberg on Blood Transfusion, Lusk discusses the Intravascular Treatment of Thoracic Aneurysm with gold wire and galvanism, and Amberton and Peters of the Loomis Sanitarium give a lengthy article on the Treatment of Pulmonary Tuberculosis by Induced Pneumothorax.

Other chapters deal with all the separate organs contained in the thorax without the omission of such structures as the thoracic duct and the phrenic and cervical sympathetic nerves in their relation to thoracic disease. The final chapter deals with Military Surgery.

The type is clear the paper of splendid quality, and the numerous illustrations, photographs, reproductions of X-ray plates and colored plates add greatly to the value of the work. The bibliography of six and a half pages bears mute testimony to the fact that Dr. Lilienthal has consulted and quoted freely from other authors.

In the future those who wish to devote special time to the study of this important and difficult branch of surgery will early find it necessary to secure these volumes.

HENRY F. GRAHAM

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MEDICAL HEREDITY Distinguished Children of Physicians (United States, to 1910) By WILLIAM BROWNING, Ph.B., M.D. Octavo of 250 pages Baltimore, The Norman, Remington Company, 1925 Cloth, \$4.00

This volume is a masterpiece. It is the culmination of the life-hobby of one of our own profession whose versatility and scholarly attainments are internationally recognized. The treatment of the subject is entirely unique, and the mass of statistics, covering over 3,000 physicians in the United States and mentioning some 6,500 persons altogether, is so large as to certify correct evaluations. A new field has been entered upon which must prove fascinating and of fundamental importance, not alone "in the general sense" of heredity, as the author puts it, but from the biological angle of amphimixis—gametes, zygotes and genes.

It is evident from the first page throughout the whole work that Dr Browning has made an intensive study of his subject, applying original concepts to the general arrangement and so classifying his data as to stimulate thought and make deductions simple. His own theory of what he has accomplished combines modesty with the charm of suggestiveness without dogmatism. Only a mind trained to logical thought, coupled with an indomitable "will to do" could project and carry on, through a long period of years, so important an undertaking, and the fact of its successful completion justifies the prediction that it will receive wide and favorable recognition and find a chosen place on the shelves of many physicians, biologists and intellectuals generally.

It has seemed a somewhat ambitious task to review critically a work of such depth, but a life-long acquaintance with the author and the exhilaration of having read a book so "out of the usual" makes the attempt perhaps legitimate.

J M VAN COTT

TAYLOR'S PRACTICE OF MEDICINE. By E. P. POULTON, A.M., M.D., Oxon., F.R.C.P., Lond., Physician Guy's Hospital with assistance of C. PUTNAM SEYMOUR, M.A., M.D., Oxon., F.R.C.P., Lond., Assistant Physician for Nervous Diseases, Guy's Hospital, H. W. BARBER, M.A., M.B., Camb., F.R.C.P., Lond., Physician in charge Skin Dept., Guy's Hospital. Thirteenth Edition, 48 plates (8 colored) 93 text-figures. P. Blakiston's Son & Co., Philadelphia, 1926 Price, \$9.00

This volume contains some thousand pages of closely printed matter. In this revision many alterations have been made in the text and much new matter added to bring this standard work up to date. The contents are well arranged, and most of the well proven knowledge on the subjects considered is included. It follows the same general plan as most text-books of this type, and will prove of value as a short reference work.

J ARTHUR BUCHANAN

PRACTICAL OBSTETRICS By E. HASTINGS TWEEDY, M.D., F.R.C.P.I. and G. T. WRECH, M.D., in collaboration with BETHEL SOLOMONS, M.D., F.R.C.P.I. Fifth Edition. Octavo of 617 pages with 159 illustrations. London, Humphrey Milford, New York, Oxford University Press 1925 Cloth, \$6.25 (Oxford Medical Publications)

This work needs no introduction in the obstetrical field. It is recognized as a standard text. In this latest revision the senior author has had the assistance of Dr Solomons in bringing this already excellent book up to date. It probably summarizes the best thought in English obstetrics of today coming as it does from the wealth of material of the Dublin Rotunda Hospital. The tables in the appendix are particularly of value. We have only one suggestion to make for future editions and that is in the uniformity of measurements, using either centimeters or inches.

W P

CANCER, POST-GRADUATE LECTURES Delivered under the auspices of the Fellowship of Medicine Edited by HERBERT J. PATERSON. Preface by Sir JOHN BLAND-SUTTON, LI D., F.R.C.S. Illustrated William Wood and Co., New York, 1925 Price, \$4.00

This volume of 186 pages containing eleven lectures on various aspects of cancer delivered as the title page states and published "in the hope that they may appeal to a wider audience."

We share the hope. Not only because a somewhat similar enterprise of our own has somewhat sensitized us to the idea but because we think they deserve to be several reasons.

First—because they are practical. Each one of the lectures deals with some one phase of the great subject which is the title of the book, discusses it simply and directly, offering without hesitation, individual opinion and ending always on the keynote of Treatment.

It is a refreshing book. We have seen several books on cancer lately of which this could not be said. There seems to be a subtle temptation in dealing with that subject to wander into fields of mysticism or charlatanry or both.

We recommend to all those who have discovered or are about to discover a cure for cancer a prayerful perusal of this simple and straightforward little book.

J E J

APPLIED BIOCHEMISTRY By WITHROW MORSE. Octavo of 958 pages with 257 illustrations. Philadelphia and London W. B. Saunders Company, 1925 Cloth, \$7.00

This volume is made up of 958 pages of close reading matter and 257 illustrations. The author has divided the work into eighteen chapters in which he stresses the important basic biochemical facts and principles which bear directly upon the subject of medicine. Special chapters are devoted to the consideration of the enzymes, the energy producers, food values, energetics of nutrition and the metabolic studies on blood and urine. The chapter on the fate of absorbed materials, intermediate metabolism will be found most interesting and instructive to the physician interested in the diseases of metabolism of carbohydrate and fat and the structure and relations of the internal secretions.

On the whole, the entire subject is presented in an interesting style and the reader is not wearied by excessive technical detail.

H M FERRELLATT

A COMPANION TO MANUALS OF PRACTICAL ANATOMY By E. B. JAMESON, M.D., Senior Demonstrator and Lecturer on Anatomy, University of Edinburgh. Second Edition. William Wood and Co., New York, 1925 Price, \$5.00

This is a second edition of this excellent little volume intended as a companion to manuals of practical anatomy. It contains a very abbreviated, but at the same time, all of the essential points necessary for the thorough understanding of practical anatomy. The author has evidently spent considerable time and thought in the arrangement of this one volume, in order to cover the subject so well.

The volume is small, and is as readable as any manual of anatomy could possibly be.

The subjects treated in the first edition have been brought up to date, and a number of the chapters have been rewritten, as for instance the one on the lymphatic system, which is much more understandable than the chapter on the same subject in the first edition. The chapter on development is a most excellent one, and gives the student of anatomy a very concise and practical understanding of embryology. This is probably the best of the recent one-volume manuals on practical anatomy, and one that should be a most useful book for the student of anatomy, the surgeon, and the teacher of anatomy.

HERBERT T. WIALZ

CLINICAL RESEARCHES IN ACUTE ABDOMINAL DISEASE.
By ZACHARY COPE, B.A., M.D., M.S. (Lond.), F.R.C.S. (Eng.) Octavo of 148 pages with illustrations. London, Humphrey, Milford, New York, Oxford University Press, 1925. Cloth, \$4.00 (Oxford Medical Publications)

This little book is a most valuable addition to the literature on the "acute abdomen." The author has studied the symptoms and common physical findings in a very large number of acute abdominal cases and has then made careful observations of the findings at operation or autopsy. These data have been of value in estimating the real significances of the various symptoms and signs of disease. Too often an opinion has been based only on the personal opinion of some teacher or writer, biased in favor of some sign bearing his name. The author discusses the real value of such signs as muscular rigidity, tenderness, hyperesthesia and referred pain, and presents some very instructive ideas in regard to them.

His chapter on the study of phrenic shoulder-pain is one of the most beautiful clinical studies ever published. "The Differential Diagnosis between Acute Thoracic and Acute Abdominal Lesions" is invaluable and the chapter on perinephric abscess is extremely instructive.

The book is certainly worth adding to any library of works on diagnosis.

A

THE ART AND PRACTICE OF MEDICAL WRITING. By GEORGE H. SIMMONS, M.D., Editor and General Manager Emeritus, American Medical Association, and MORRIS FISHBEIN, M.D., Editor, *The Journal of the American Medical Association*, Chicago. American Medical Association Press, 1925.

This is unquestionably the best book that has ever been published on the subject of the technic of medical writing. It is a compendium of indispensable information boiled down to its essence. The reviewer has found from personal experience that the perplexing questions that constantly arise in the course of the preparation of medical literature are answered in this manual as in no other work of reference. The physician who attempts to write a medical paper without the assistance of "The Art and Practice of Medical Writing" is working under a definite handicap.

A valuable feature is the complete list of bibliographic abbreviations. It is unfortunate, however, that the abbreviations and the form of reference adopted by the American Medical Association differ from that of the "Index Catalogue" of the Surgeon General's Office and the "Index Medicus." The latter publications adopted a satisfactory standard for references years ago. The adoption of a new standard for references by the American Medical Association has not simplified the work for the reader who must refer to all indexes. This is not meant as an adverse criticism of the American Medical Association's style of reference but as a plea for uniformity.

FREDERIC DAMRAU

MAN HIS MAKING AND UNMAKING. By E. BOYD BARRITT, M.A., Ph.D. Thomas Seltzer, New York, 1925. Price, \$2.50.

Humanology is the term coined by the author to cover his subject which he considers too broad in scope to be confined merely to psychology. He deals with slightly abnormal individuals, such as the narcotomaniac and the pyromaniac, in interesting detail, but, in our opinion, the most interesting chapter is that entitled "Explaining Away Religion" which discusses the conflict of religion and psychoanalysis and the undermining of preconceived religious ideas through the development of this new science. The book is instructive and the worthy aim of the author, who is greatly interested in the welfare of mankind, to help man attain self-adjustment in life to normal, healthy existence, is not in vain.

M. L. A.

GENIUS AND DISASTER, STUDIES IN DRUGS AND GENIUS. By JEANNETTE MARKS, Professor of English Literature, Mount Holyoke College. Adelphi Co., New York, 1925. Price, \$3.00 net.

This book is an essay on the relation of genius to drug addiction, disease poisons, and insanity, as exemplified in the lives of certain famous writers. It is more literary and social study than a medical one, as would be expected from a professor of literature, but the author shows a considerable acquaintance with the subject of drug addiction in some of its aspects.

The author refers to the debt which the world owes to the geniuses whose lives were wrecked by the above mentioned agencies, which were used by them in the production of their contributions to the advancement of civilization and culture, she speaks of the "type of writer or artist who is inspired only when he is mad", and she says, "it would seem as if the world's history were made only by the asylum and hospital, by neuropaths and epileptics and consumptives." The last statement is rather strong, but there is some basis for it.

The drugs bringing genius to disaster which are particularly discussed are alcohol, opium and chloral, and the disease toxin, that of tuberculosis. These agents are supposed to act chiefly by temporary relieving genius from the inhibitions imposed by the training of the civilized life, the intoxication of drugs and disease poisons breaks down inhibitions and releases genius if it exists.

The author differentiates the effects of alcohol and opium as observed in the productions of genius. Alcohol gives "pictures sharp and distinct", with opium are observed "alliteration, shifting and drag of attack, of plan, of purpose, of setting, of character, the syncope, the phantasmagoria and hallucination." She claims that it is easy to detect from examination of the work itself which drug was used.

She cites a few well known writers as shining or horrible examples, as follows. De Quincey took opium in large quantities, but as he took it in the form of laudanum and raised his daily dose as high as eight thousand drops of that preparation, he must at times have taken a great deal of alcohol also. Poe notably exemplifies the effects of opium. The author speaks of the "sonorous emptiness of Poe's Raven." Poe also took alcohol, but could not stand much of it. Coleridge took opium and his writings show marked evidences of its effects. Rossetti became a slave to chloral, having taken it at first for insomnia. It did not seem to have any noticeable effect on the quality of his work. James Thomson was a periodical drinker, and probably also took some opium, his work may be generally considered to illustrate the workings of genius under the influence of alcohol, but in spots according to the author it shows evidences of opium. Stevenson's case shows how the poison of tuberculosis can stimulate or facilitate the productive activity of great genius. Swinburne is considered to be hysteric if not epileptic. Nietzsche's stigmata of insanity are referred to, and also Strindberg's. The studies given of Poe and James Thomson are particularly keen, sympathetic and interesting.

There is no notice in this book of coffee, which in moderate doses excites the higher brain centres and may increase the rapidity if a dose does not improve the quality of the mental processes, but which in excessive doses causes confusion of thought, which drug is probably used by the literary tribe more than all others combined to lash Pegasus. Nor is any reference made to that greatest of all literary geniuses, in whose writings can be found no stigmata of any kind, and who himself observed that great wit to madness is often near allied.

This is a clever, a brilliant essay, and will interest many.

EDWARD E. CORNWALL.

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THE SYPHILIS EXHIBIT

*An editorial description of the exhibit conducted on Thursday, April 1, 1926,
the last day of the Annual Meeting of the Medical Society
of the State of New York*

AN all day exhibit covering all phases of a single disease has been adopted by the Medical Society of the State of New York as a feature of its Annual Meetings. The first exhibit, that of 1925, was on the subject of Tuberculosis. That of 1926 was on Syphilis.

The Syphilis Exhibit was probably the most comprehensive and complete that was ever attempted on that subject, and its influence on the audience was bounded only by the physical limitations of time and exhibit space, and the retentive powers of the observers. All phases of the medical problem of syphilis were shown in graphic form—clinical cases, pictures, charts, pathological specimens, books, movies, lantern slides and lecturers. Above all, there was a deeply interested audience of over five hundred physicians, about one hundred of whom came especially to see the exhibit.

All the features were assembled, set up, exhibited, dissolved and removed during the twenty-four hours, from midnight to midnight, of Thursday, April 1. To accomplish this takes required careful planning and prompt execution.

The exhibit was a part of the scientific program of the State Medical Society and was promoted by its Scientific Committee of which Dr Andrew Mac Farlane of Albany was Chairman. The immediate execution of the plans was placed in the hands of a local committee consisting of Dr Louis I Harris, Commissioner of Health of New York City, Dr Albert Pfeiffer, representing the State Department of Health, Dr Joseph S Lawrence, Executive Officer of the Medical Society of the State of New York, Dr William F Snow, Medical Director of the American Social Hygiene Association, Dr Walter Brunet, Dr Louis Chargin, Dr Howard Fox, Dr George M Mackee, Dr Alfred Potter, Dr Hans Schwartz, Dr Alec N Thomson and Dr Fred Wise.

The local committee held several meetings and decided on the exhibitors and speakers to be invited. It was planned to hold the exhibit in the

Waldorf-Astoria Hotel, New York, in the same rooms in which the regular meeting of the Society was held. The grand ball room and part of the second floor around it were given over to the exhibit. Booths were erected in the ball room itself, and the adjoining rooms were used for lectures and picture demonstrations.

The booths, 28 in number, were built especially for the occasion by S Asch, Exposition Builder and Decorator of 74 West 48th Street, New York, who has constructed the booths for the commercial exhibit of the State Medical Society for a number of years. The booths were made of large panels of beaver board, slid into grooved frames which were supported on light standards. The walls were about eight feet high and were plainly painted. The cost of the booths was something under six hundred dollars. They were built in units of standard sizes and all were erected within three or four hours time. The hotel workmen supplied the electrical connections at a cost of about sixty dollars.

An unusually large amount of material for the syphilis exhibit was available in New York City. Cases, specimens, pathological laboratories, clinicians and teachers—all were numerous. The Committee was hampered by the abundance rather than the scarcity of material. All phases of the problem of syphilis were illustrated in the exhibit. For the general practitioner of medicine cases of syphilis of almost every organ of the body were provided, and in many diseases there were also pathological specimens which illustrated the conditions with which the patients suffered. Laboratory workers were on hand to demonstrate microscopical and serological conditions. The Department of Health showed diagrams and charts illustrating how they dealt with the governmental phases of syphilis. Teaching problems were illustrated by medical schools and hospitals. Large organizations showed how they were educating the people regarding syphilis and providing literature and conducting cam-



BOOKS RECEIVED



Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

- AVIATION MEDICINE.** By LOUIS HOPEWELL BAUER, A.B., M.D. Published by authority of the Surgeon General. Octavo of 241 pages, with illustrations. Baltimore, Williams and Wilkins Company, 1926. Cloth, \$7.50.
- EVOLUTION, GENETICS AND EUGENICS.** By HORATIO HACKETT NEWMAN. Second Edition. Octavo of 639 pages, with illustrations. Chicago, University of Chicago Press, 1925.
- A HANDBOOK FOR SENIOR NURSES AND MIDWIVES.** By J. K. WATSON, M.D. 12mo of 554 pages with illustrations. New York, Oxford University Press, 1926. Cloth, \$4.00 (Oxford Medical Publications).
- A MANUAL OF CLINICAL LABORATORY METHODS.** By CLYDE LOTTRIDGE CUMMER, Ph.B., M.D. Second Edition, thoroughly revised. Octavo of 547 pages with illustrations. Philadelphia and New York, Lea and Febiger, 1926. Cloth, \$6.50.
- THE DIAGNOSIS AND TREATMENT OF TUBERCULOSIS OF THE HIP.** By G. R. GIRLESTONE, B.M. (Oxon.), F.R.C.S. Octavo of 94 pages, with illustrations. New York, Oxford University Press, 1925. (Oxford Medical Publications).
- SURGICAL CLINICS OF NORTH AMERICA.** Vol. 5, No. 6, December, 1925. (Philadelphia Number). Published every other month by the W. B. Saunders Company, Philadelphia and London. Per Clinic Year (6 issues). Cloth, \$16.00 net, paper, \$12.00 net.
- HYGIENE OF SEX.** By MAX VON GRUBER. Authorized English Translation. 12mo of 169 pages. Baltimore, Williams and Wilkins Company, 1926. Cloth, \$1.50.
- CHEMISTRY AND RECENT PROGRESS IN MEDICINE.** By JULIUS STIEGLITZ. Octavo of 62 pages. Baltimore, Williams and Wilkins Company, 1926. (The Johns Hopkins University School of Medicine, The Charles E. Dohme Memorial Lectureship, Second Course, 1924).
- FACTS ON THE HEART.** By RICHARD C. CABOT, M.D. Octavo of 781 pages with 163 illustrations. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, \$7.50.
- GASTRIC FUNCTION IN HEALTH AND DISEASE.** By JOHN A. RYLE, M.D., F.R.C.P. Octavo of 152 pages, with illustrations. New York, Oxford University Press, 1926. Cloth, \$2.75 (Oxford Medical Publications).
- VISUAL FIELD STUDIES.** By RALPH I. LLOYD, M.D., F.A.C.S. Octavo of 216 pages with 124 illustrations. New York, The Technical Press, 1926. (For sale by E. C. Swezey, 50 Pine Street, New York City). Cloth, \$6.00.
- YOUNG'S PRACTICE OF UROLOGY.** Based on a Study of 12,500 Cases. By HUGH H. YOUNG, M.D., and DAVID M. DAVIS, M.D. Two octavo volumes, totaling 1484 pages with 1,003 illustrations. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, \$25.00.
- GOULD AND PYLE'S POCKET CYCLOPEDIA OF MEDICINE AND SURGERY.** Based upon the Fourth Edition of Gould Pyle's Cyclopedia of Practical Medicine and Surgery. Third edition. Revised, enlarged and edited by R. J. E. SCOTT, M.A., B.C.L., M.D. 16mo of 922 pages. Philadelphia, P. Blakiston's Son and Company, 1926. Flexible binding, \$2.00, with thumb index, \$2.50.
- SIXTY YEARS IN MEDICAL HARNESS.** Or the Story of a Long Medical Life, 1865-1925. By CHARLES BEN EULYN JOHNSON, M.D. Octavo of 333 pages. New York, The Medical Life Press, 1926. Cloth, \$3.00.
- MEDICAL DIAGNOSIS FOR THE STUDENT AND PRACTITIONER.** By CHARLES LYMAN GREENE, M.D. Sixth edition revised and enlarged. Octavo of 1468 pages with 14 colored plates and 709 other illustrations. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, \$12.00.
- NOUVEAU TRAITÉ DE MÉDECINE.** Published under the Direction of G. H. ROGER, FERNAND VIDAL and P. J. TEISSIER. Fascicule XIX. Pathologie du Cerveau et du Cervelet. Octavo of 1016 pages, with illustrations. Paris, Masson et Cie, 1925. Boards, 75 francs.
- THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR.** Volume VIII. Field Operations. Prepared under the direction of MAJ. GEN. M. W. IRELAND. By COL. CHARLES LYNCH, M.C., COL. JOSEPH H. FORD, M.C. and LIEUT. COL. FRANK W. WEEP, M.C. Octavo of 1097 pages, with illustrations. Washington, Government Printing Office, 1925.
- THE PHARMACOPOEIA OF THE UNITED STATES OF AMERICA.** Tenth Decennial Revision. By Authority of the United States Pharmacopoeial Convention, held at Washington, D. C., May 11, 1920. Prepared by the Committee of Revision and published by the Board of Trustees. Official from January 1, 1926. Octavo of 626 pages. Philadelphia, J. B. Lippincott Company, 1925.
- INTERNATIONAL CLINICS.** Volume 1. Thirty-Sixth Series, 1926. Octavo of 309 pages, with illustrations. Philadelphia and London, J. B. Lippincott Company, 1926.
- ARCHIVES OF THE ANDREW TODD MCCLINTOCK MEMORIAL FOUNDATION FOR THE STUDY OF DISEASES OF THE ALIMENTARY CANAL.** Volume 1. Pleomorphism in Bacterial Protoplasm. A study in Psittacosis. By ANDREW TODD MCCLINTOCK, M.D. Octavo of 240 pages. Privately printed, 1925.
- POTTER'S COMPEND OF MATERIA MEDICA, THERAPEUTICS AND PRESCRIPTION WRITING.** With especial reference to the Physiological Action of Drugs. Based on the Tenth Revision of the U. S. Pharmacopoeia including also many un-official remedies by A. D. BUSH. 9th Edition. 12mo of 262 pages. Philadelphia, P. Blakiston's Son and Company, 1926. Cloth, \$2.00.
- OPHTHALMIC NEURO-MYOLOGY.** A Study of the Normal and Abnormal Actions of the Ocular Muscles from the Brain Side of the Question. By GILES C. SAVAGE. Second Edition. Octavo of 227 pages, illustrated. Nashville, Tenn., McQuiddy Printing Co., 1926. Cloth, \$3.00.
- INDIGESTION.** What It Is and How to Prevent It. By ARTHUR L. HOLLAND. 12mo of 130 pages, illustrated. New York, D. Appleton and Company, 1926.

Skin and Cancer Hospital The doctors showed a special needle designed to prevent the seepage and extravasation which are the usual causes of the shock of spinal puncture

15 **Drugs and methods of Syphilis Therapy** used in the clinics of the Department of Health of New York City were shown by Drs L Chargin and A Stone

16 **Dr D Satenstein of the Vanderbilt Clinic** showed 25 microscopic slides of pathological specimens illustrating syphilis in its various stages and forms

17 **Radiograms of various manifestations of syphilis** were shown by Dr I S Hirsch of Bellevue Hospital

18 **Photographs and inoculated animals illustrating experimental syphilis** were shown by Drs Wade Brown and Hideyo Noguchi of the Rockefeller Institute

19 **The Wassermann test** was demonstrated by Dr A B Wadsworth of the Laboratory of the Department of Health of New York State

20 **Dr Kahn of the Laboratory of the State Department of Health of Michigan** gave vivid demonstrations of his new precipitin test for the detection of syphilis This was the outstanding new feature that was shown at the exhibit

21 **Drs A. Jacoby, W Seckel and M Nemer** of the Department of Health of New York City, showed living spirocheta under the microscope.

22 **Dr Howard Fox of the New York University** showed lantern slides illustrating syphilis among colored people

23 **Dr Emily D Barringer** brought women patients from the Kingston Avenue Hospital and demonstrated early syphilitic lesions of the vagina and cervix, dwelling especially on difficult points in diagnosis

24 **Dr H Winter** from the New York Dental College demonstrated methods of restoring the soft parts of the mouth following their destruction by ulcerative syphilitic processes He showed patients whose palates were almost completely gone and yet who were able to swallow and talk normally when the artificial palate was worn

25 **Mr Frank Place**, Assistant Librarian of the New York Academy of Medicine, showed representative publications on syphilis

26-28 **The New York City Department of Health, the New York State Department of Health and the American Social Hygiene Association**, each showed literature diagrams and charts illustrating methods of educating both the doctors and the people regarding syphilis

Papers which embody the talks given informally by the demonstrators have been prepared and are printed elsewhere in this issue of the JOURNAL

A program consisting of papers on syphilis was also carried out during the afternoon of the

day of the exhibit These papers are also published in this issue of the JOURNAL

A booklet on "The Fundamentals of Syphilis" was the special contribution of the New York State Department of Health to that part of the annual meeting which was devoted especially to syphilis This booklet was prepared under the supervision of Dr Albert Pfeiffer, Director of the Division of Venereal Diseases, and Dr Walter A Brunet of the American Social Hygiene Association A copy of it was mailed to every member of the State Medical Society It was designed to inform doctors in general practice regarding the modern standard of the diagnosis and treatment of syphilis While much of its matter is fundamental and is almost popular in style and contents, yet it does state simply and clearly the modern point of view which a doctor should have regarding the disease One who reads the booklet will refresh his memory in the essential points of the disease He will also find it to be a model form in which he may import information to his less informed colleagues and to his more intelligent patients. The booklet takes up the early diagnosis of the disease, especially in its early stages, by the recognition of the causative agent, the *Spirocheta Pallida*, and says

"No physician, and no hospital or dispensary which is not equipped to identify the organism of syphilis or is unwilling to see that the patient gets the benefit of such knowledge elsewhere if it is called for by the nature of his case, has any right to pretend to deal with early syphilis

"The constitutional effects of secondary syphilis are not limited to the skin and the mucous surfaces of the mouth and genitals, but there are in about half of the cases well-defined constitutional symptoms It is these cases which have severe and early recognizable symptoms that most often go early to a physician, and fortunate it is for them as it places them immediately under medical supervision On the other hand cases which have slight symptoms or none at all come under the physician's care late and in these cases it so often happens that the delay is often a cause for grave cardio-vascular and other visceral changes which may become apparent later or only at a post-mortem Syphilis in its early local and secondary stages is usually one of the mildest of all the serious infections as far as symptoms are concerned In its later stages it is without a peer one of the gravest disease entities"

The two principal diagnostic tests, the recognition of the spirocheta and the Wassermann reaction, are given and syphilis in pregnancy is described, and finally, the standard therapeutic measures are outlined

The general practitioner should find the book of real value in assuring him that he is following the accepted standards when he examines and treats a patient for suspected syphilis

paigns for better laws. The New York Academy of Medicine had a table full of representative books on the subject of syphilis.

The material for the exhibits were sent to the hotel on the previous day so far as possible and each exhibitor made his own arrangements for the transportation and care of his exhibit. Cases were brought to the hotel on the morning of the exhibition and those who remained during the noon hour were given a lunch.

The State Medical Society had appropriated one thousand dollars for the expenses of the exhibit and the total expenses came within that sum. A liberal policy was adopted in regard to such items as the cost of transporting and feeding patients, for hospital and colleges often had no funds for those purposes. The cost was remarkably low considering the necessary rapidity with which the exhibit had to be assembled and dispersed.

While the formal exhibits numbered twenty-eight, an estimation of the number of experts taking part in them would be difficult. Certainly over one hundred physicians and laboratory workers were actively engaged on the exhibit.

It is quite difficult to estimate the number of patients shown, but there were at least one hundred.

The following is a list of the exhibitors.

1 Dr M Parounagian and F Mason demonstrated clinical syphilis in its primary and secondary stages on patients and photographs from Bellevue Hospitals.

2 Dr Benson Cannon demonstrated tertiary syphilis including leg ulcers and gummata on patients from the City Hospital.

3 Dr Dudley D Stetson showed the scars of healed lesions on cases from the New York Skin and Cancer Hospital.

4 Drs S Oppenheimer, B Crohn, A Winkelstein and J Marcus demonstrated syphilis of the stomach on patients from Mount Sinai Hospital.

5 Cardio Vascular conditions were demonstrated by Dr Harlow Brooks on patients from the City Hospital and on pathological specimens of organs which were affected like those of the patients. Especially striking was an immense aortal aneurism almost as big as a man's head, and a patient who had a similar aneurism almost as large and yet he could go about and do light work. Dr Brooks also showed specimens of hearts whose cut surfaces were spotted with small white areas of syphilitic degeneration. The patients had died suddenly and the only lesions found were those in the heart.

6 Pulmonary syphilis was illustrated by patients and X-rays shown by Dr G Ornstein from the Vanderbilt Clinic.

7 Patients and X-rays illustrating bone and joint syphilis were shown by Drs S Kleinberg, J Buchman, R Kahle and P Colonna, from the

New York Hospital for the Ruptured and Crippled.

8 Pathological specimens, including lantern slides, of cerebrospinal syphilis were shown by Drs I Strauss and J Globus from Mount Sinai Hospital.

9 Patients suffering from Tabes were shown by Drs M Keschner and M Grossman from Mount Sinai Hospital.

10 The subject of Paresis was illustrated with cases from the New York State Psychiatric Institute by Drs G H Kirby and A Pollack.

11 Dr Arthur S Tenner, of New York, exhibited cases of syphilis affecting the anterior segment of the eye. The patients were from the clinics of the Post Graduate Hospital. Five cases of interstitial keratitis in various stages were shown. Four of these were due to congenital syphilis and one, aged 27, a monocular case, was due to acquired syphilis. Of the congenital cases, only one showed the typical facies of congenital lues, the saddle back nose and rhagades. As he was only 5 years old, with permanent teeth unerupted, of course there were no Hutchinsonian teeth. The other congenital cases all showed moderate modifications of the central incisors of the Hutchinsonian type.

Cases of irido-cyclitis of syphilitic origin were also shown.

Despite the current belief that the doctor in general practice is indifferent in ophthalmological matters, Dr Tenner was extremely gratified by the interest shown by his numerous auditors both in the cases and his demonstration.

In the afternoon, Dr M Uribe Troncoso gave a demonstration of several patients with luetic involvement of the fundus of the eye. Using the electric ophthalmoscope of a new and powerful model, he demonstrated cases of atrophy of the optic nerve, primary and secondary to neuritis and chorioretinitis in acute and chronic stages.

Dr Troncoso also gave a lecture on syphilitic fundus diseases, throwing on the screen slides showing the conditions that can be found in the syphilitic infection of the inner eye structures.

12 Patients showing syphilitic lesions of the auditory nerve were shown by Dr R Almour of Beth Israel Hospital.

13 Dr I Rosen from the Vanderbilt Clinic and Dr S Sherwood from Mount Sinai Hospital showed patients suffering from congenital syphilis, and gave demonstrations of the technique and methods of therapeutic measures by actually treating the cases and taking their blood for diagnosis.

14 Early Neuro-Syphilis was demonstrated by Drs Randal Hoyt and A MacGregor of the

appearance and the involvement of the temporal and occipital regions are quite diagnostic

15 Secondary Syphilis, with a interesting history, was first seen on Jan 14, 1926, who had a frenal sore of 3 weeks duration. He was treated by a private physician with salves. Five dark-field examinations were negative and his Wassermann test as late as March 15, 1926, was negative

Roseola appeared on March 10, 1926

This case conclusively proves that, *we must not treat suspected lesions with any kind of applications but saline solution, until a diagnosis is made*

16 Gumma of the Scrotum (right), aged 44, colored. Ulceration of Mouth and Tongue. Scar of Chancre on dorsum of penis, 8 months previously. Phimosis, Gummatous ulcer on thigh. Secondary stage but tertiary lesions

17 Charcot-Joint (left knee), patient aged 43, infection 23 years previously. Duration was over one year. The Wassermann was + repeatedly

18 Charcot-Joint (left knee), Italian, aged 51, infection 18 years, Wassermann +, diagnosis confirmed by the X-ray examination

19 Rosette Type of Chancre, colored, age 19, exposed 3 months previously. Annular Syphilide of naso labial junction, Wassermann reaction +. Condylomas about the anal regions. This type of lesions nearly diagnostic of syphilis

20 Lip Chancre (upper and lower). Roseola. His Wassermann examination was reported +

21 Syphilitic Alopecia, aged 26, multiple chancres three months. Syphilitic Leucoderma. Prior Incubation period two weeks

22 Gumma of the Meatus, Syphilitic Orchitis, Scar of Old Chancre on Glans Penis. Colored, aged 23. He gave a history of chancre 6 years previously. His last exposure was 6 months since Wassermann +. Dark-field negative. Duration 6 weeks

23 Meatal Chancre, Fading Roseola. Wassermann +, dark-field positive. Meatal sores with few exceptions are of syphilitic origin

24 Chancre of the Eyebrow (right), aged 22 chauffeur. The lesion was nearly healed. He was shown with his photo

25 Anal Chancre, Congenital Signs of Syphilis. A youth of 17 yrs, admitted perversion. His Wassermann was + and had marked secondaries. The anal infection usually detected from the swelling of the lymphatics below the Poupert's ligament

4 Gumma of chin, Showing result of treatment

5 Congenital Syphilis, Hutchinson's Teeth (Female)

6 Congenital Syphilis, Hutchinson's Teeth, (Male)

7 Alopecia Syphilitica. (Female)

8 Alopecia Syphilitica, Result of Treatment

9 Alopecia Syphilitica (male)

10 Alopecia Syphilitica, Result of Treatment

11 Annular-Pigmented Syphilide in a white woman (not very common)

12 Nodular Syphiloderm of Chest, Ulceration of Pubic region with complete destruction of penis

13 Congenital Syphilis, showing a well marked example of Tubercle of Mibelli. This boy's parents and a younger brother were patients of ours

14 Gumma of the inner canthus

15 Result of Treatment

16 Condyloma of the groove of the chin (quite uncommon)

17 Chancre of Upper Lip (moustach region)

18 Lip Chancre (upper), unusually large and resistant to treatment. This was an extra-marital infection, who later infected her husband

19 Epithelioma of the lower lip, resembling chancre, in a syphilitic

20 Multiple Chancres, from one exposure, five in number, 2 on upper lip, 1 on lower lip, 1 on the abdomen near the pubic region and 1 on shaft of penis. Dark-Field was positive on all sores and marked roseola

21 Extensive gummatous ulceration of scrotum (rather rare)

22 Meatal Chancre, often diagnosed as gonorrhoea

23 Papulo-Squamous Syphilide, which could be mistaken for psoriasis

24 Extensive Condylomas of the Genitals

25 Lip Chancre (upper), unusually large, female

26 Gumma of the nose (gangrenous)

27 Result of treatment (no signs of scar)

28 Gumma of the naso-labial region

29 Congenital Syphilis, showing Hutchinson's Teeth (colored girl)

30 Chancre of Lip (lower), male

31 Perforating Ulcer of Foot

32 Double Chancre of Vulvae

33 Lip Chancre (lower), male

34 Lip Chancre (lower), female

35 Gumma of Scrotum, very extensive, left testicle exposed

36 Gumma of the Neck

37 Chancre of the Coronary Border

38 Multiple Chancres, two on glans penis and one on prepuce

39 Circinate Syphiloderm of the scrotum (tertiary)

40 Double Chancre of Vulvae, extensive condylomas in a colored child of 6 years

LIST OF THE PHOTOGRAPHIC EXHIBIT

Parounagian Collection

1 Lip Chancre (upper). Husband had mucous patches on his tongue.

2 Gumma of the forehead

3 Gumma of chin, caused by a human bite

DESCRIPTIONS OF THE EXHIBITS

PRIMARY AND SECONDARY SYPHILIS

By M PAROUNAGIAN, M D, and F MASON, M D

BELLEVUE HOSPITAL, NEW YORK

THIS exhibit was conducted at the request of our very able Commissioner of Health, Dr Louis I Harris, to whom we are indebted for leadership in this important educational campaign

In our presentation of both the patients and photographs, we endeavored to demonstrate the common features as well as rarer phases of the disease, from the primary to the congenital stage

We presented twenty-five patients of which ten were female and fifteen male. A brief detailed outline will be given to bring out the essential points

One hundred and ten photographs of interest were posted on the walls illustrating many unusual forms of syphilis, a complete list of which will be included with comments on some of the interesting ones

The female patients presented the following conditions

1 Chancre Roseola (upper lip) a married woman, aged 26 years. Duration since February 1, 1926. On February 15, she consulted a physician who diagnosed it as "cold sore." This is a quite common diagnosis. This type of cases we seldom get before they have secondaries and 4+ Wassermann. Fortunately her husband was not infected. In this connection would say that, we have never encountered a second case of lip chancre in the same family

Marked swelling of the lymphatics corresponding to the location is a diagnostic sign

2 Gummatous Ulceration, with destruction of the soft palate in a young colored woman. Wassermann +

3 Congenital Syphilis, presenting a well marked example of tubercle of Mibelli, girl of 18 years, whose mother had died in an insane asylum. Her Wassermann test was +, had interstitial keratitis, high vault, imperfect hair line and a protruding forehead

4 Congenital Syphilis presenting a typical saddle nose, corneal opacity, + Wassermann and other signs confirming the diagnosis

5 Extensive Gummatous Ulceration of both legs of five years duration, a young woman who had been treated with salves only for a long time. This patient has a boy of 5 yrs with marked sign of congenital syphilis. Her Wassermann test showed + and she is getting well under anti-syphilitic medication

6 Leucoplakia in a marked Tabetic. This patient had marked Rhomberg, absent knee-jerks, fixed pupils and + Wassermann reaction. Leu-

coplakia is a very uncommon condition in women. This is the second case in a woman we have seen. She was a smoker

7 Congenital Syphilis, showing a typical example of Hutchinson's teeth. This patient had a positive family history and signs of congenital syphilis and also + Wassermann reaction

8 Secondary Syphilis with a profuse roseola, nothing unusual

9 Charcot-Joint, patient had been infected many years since and the duration of joint affection was said to be about two years. She showed unmistakable signs of tabes dorsalis

10 Extensive Circinate Rupial Syphilide of the back (tertiary)

The following were the male patients

11 Chancre of Frenum, the incubation was ten days, the lesion had been Roseola, Inguinal Bubo cauterized (poor technic) as the result of which three dark-field examinations were negative. Finally we secured positive dark-field and Wassermann. In this connection, we wish to state that nearly all frenal sores are of syphilitic origin

12 Syphilitic Super-Infection. First infection, March 5, 1925, he then had a chancre on the dorsum of prepuce, roseola and + Wassermann. Treatment from March 5th to May 19, 1925, he received 8 silver-arsph and 11 mercuric salicylate injections and discontinued treatment of his own accord

Returned Aug 10, 1925, with a Recurrent Roseola, Wassermann +

This time, received 6 arsphenamin and 15 mercury injections

On March 8, 1926, returned with a typical chancre on the ventral aspect of shaft (middle) and two small lesions on the left side of scrotum. He had been exposed one month prior to the appearance of the new lesions

The dark-field examination from all three lesions were positive. He again presented a marked roseola and his Wassermann test was +

13 Congenital Syphilis, a boy, aged 12, referred to us from the Eye department of Bellevue Hospital. He presented a tubercle of Mibelli, high arch, interstitial keratitis, etc. He had repeatedly positive Wassermann

14 Syphilitic Alopecia, Fading Roseola, Mucous patches in throat. This condition usually met at the early stages, most often within six months after the infection. It is claimed that alopecia of this origin usually occurs in patients who have had febrile onset. The "moth eaten"

old He entered the hospital six years ago complaining of pain in the pit of the stomach which came on a few hours after meals and was relieved by taking food The radiographer suspected peripyloric adhesions The Wassermann reaction was 4 plus He had a profound anemia of the primary type and low acid figures in the stomach He left the hospital against advice after a very brief course of anti-luetic treatment Five years later, last August, he again entered the hospital with the same complaints The findings then were a profound secondary anemia, 4 plus Wassermann reaction, a true achylia gastrica, and the radiograms showed a large irregular filling defect in the posterior wall of the stomach near the cardia Malignancy or gumma of the stomach were considered as possible diagnoses Due to the great operative risk, he was placed on anti-luetic treatment As you see, these X-ray films showed no change in the lesion after a few weeks of treatment However, the last films, taken after five months of treatment, show an almost complete disappearance of the defect, only a slight irregularity of the posterior wall remaining visible in the oblique position The patient is obviously well-nourished, his anemia is now only moderate, and he has an excellent appetite and does not complain

It is true that we have no conclusive proof that this is gastric lues and it is also true that a 4 plus Wasserman reaction does not mean that an organic gastric lesion is luetic, yet this case seems to fulfill most of the necessary conditions (1) he has a positive Wassermann reaction, (2) achylia gastrica, (3) a defect and an anemia which would lead one to expect more cachexia if it were malignancy, (4) symptoms of ulcer rather than carcinoma, (5) a long duration with good appetite and a well nourished state, (6) a de-

crease in the size of the lesion under anti-luetic treatment

Let us leave the living case and pass on to view the specimen which, we might assume, represents the gross appearance of the patient's lesion The first jar shows a large gumma, lemon size, in the posterior wall of the stomach This patient had vomiting and epigastric pain for one year, and died of a peritonitis which followed a gastro-enterostomy He also had, as seen in the second jar, a luetic liver or *hepar lobatum* In the third jar, you will see another stomach which shows a diffuse nodular ulcerated infiltration in the pyloric end of the stomach This specimen was obtained from a boy 19 years old who died one week after a subtotal gastrectomy The autopsy showed in addition syphilis of the aorta and myocardium.

The microscopic preparations, photographs and lantern slides reveal the characteristic histologic lesions of tertiary syphilis (1) diffuse submucosal infiltration—chiefly plasma and lymphoid cells, (2) miliary gummata—with multi-nucleated giant cells and plasma cells, (3) vessel involvement—peri-vascular infiltration with round cells, endarteritis and endophlebitis obliterans The illustration on the wall is a micro-photograph of gastric syphilis which is the only case on record showing spirochetes (case published by McNee)

A presentation of this subject should not be closed without emphasizing the following features (1) the rarity of the disease, (2) the possibility of making clinical diagnosis, (3) the excellent results of treatment if prolonged and intensive, (4) an organic gastric lesion with a positive Wassermann is only rarely luetic, (5) and that the histologic features, and the response to anti-luetic therapy, as judged by careful X-ray studies, are the two best diagnostic criteria

PULMONARY SYPHILIS

By GEORGE G ORNSTEN, M D

DEPARTMENT OF TUBERCULOSIS VANDERBILT CLINIC COLUMBIA UNIVERSITY

THERE is no question as to the existence of pulmonary syphilis It is a rare disease but occurs more frequently than the pathologists report From their autopsy figures, one would believe that its occurrence is exceptionally rare as a "clinical entity" Fowler (1) found but twelve specimens in the museums of the London Hospitals and the Royal College of Surgeons Two of these cases were doubtful At the Johns Hopkins Hospital, Osler (2) reported 12 cases out of 2,800 autopsies Of these 12, only 4 were acquired Among 3,000 autopsies at the Massachusetts General Hospital, Lord (3) found only 1 case of acquired syphilis Symmers (4), in a study of 4,800 autopsy protocols, 314

of which showed lesions of syphilis, reported 12 cases and syphilitic pleural scars in 2 more Syphilis of the trachea and bronchi is perhaps a less rare condition Connors (5), in 1903 collected 128 cases Symmers (4) mentions 4 cases involving the trachea among 4,800 autopsies Lord (3) reported 2 cases in 3,000 autopsies at the Massachusetts General Hospital.

This difference between clinical impressions and the results of compilation of autopsy statistics may be accounted for by the hesitancy of the pathologists in making a diagnosis of syphilis of the lung MacCallum's (6) description of the tertiary stage of syphilis and how difficult it is to differentiate it from tuberculosis, especially in

- 41 Rupial Circinate Syphilide (generalized)
- 42 Secondary Syphilides of the Genitals
- 43 Palmar-Syphilide (Tertiary) As a rule unilateral
- 44 Tertiary Circinate Syphiloderm of Fore-arms
- 45 Palmar Syphiloderm (Secondary) Usually symmetrical
- 46 Phagedenic Chancre of Pubic Region and base of penis
- 47 Ulceration and sloughing due to faulty technique in salvarsan administration
- 48 Gumma, dorsum of foot
- 49 Pubic and Scrotal Chancre
- 50 Rosette Type of Chancre
- 51 Zoster-like distribution of Tertiary Syphilis
- 52 Chancre, peno-scrotal junction
- 53 Double Chancre of Vulvae
- 54 Leucoderma Syphiliticum of the neck (Secondary Stage)
- 55 Double Chancre of Penis
- 56 Congenital Syphilis, Condyloma at the Angle of the Mouth
- 57 Gumma of the Upper Lip and Nose
- 58 Result of Treatment
- 59 Chancre of the Thumb, caused through a fist fight
- 60 Lichenoid Syphilide (Secondary)
- 61 Papular Syphiloderm (Secondary)
- 62 Scar of Chancre on left maxillary region, result of a human bite
- 63 Gumma of the Eyebrow (left)
- 64 Tongue Chancre
- 65 Alopecia Syphilitica
- 66 Result of Treatment
- 67 Chancre of Forehead
- 68 Double Chancre of Upper Lip (colored)
- 69 Chancre of Neck (left)
- 70 Extensive Condylomas of Vulvae
- 71 Lip Chancre, lower (colored) Rare in colored race
- 72 Chancre, dorsum of shaft of penis
- 73 Superficial Syphilitic Glossitis (Secondary)
- 74 Lip Chancre (lower)
- 75 Lip Chancre (Upper and lower)
- 76 Frenal Chancre
- 77 Gumma of the Sternum (Common location)
- 78 Lip Chancre
- 79 An Unusual Type of Annular-Pigmentary Syphilide (Secondary)
- 80 Lip Chancre
- 81 Meatal Chancre
- 82 Secondary Syphilis, "Split-Pea Papule" at the Angle of the Mouth
- 83 Syphiloma of Vulvae (Colored)
- 84 Gumma of the Knee
- 85 Tertiary Nodular Syphiloderm of the Buttock
- 86 Tertiary Nodular Syphiloderm of the Arm
- 87 Tertiary Nodular Syphiloderm of the Back
- 88 Roseola of the Secondary Stage
- 89 Tertiary Manifestations of the Glans Penis Only
- 90 Serpiginous Ulcerative Syphiloderm of the Back
- 91 Tertiary Syphiloderm of Hand and Wrist
- 92 Tertiary Nodular Syphiloderm of the Hip
- 93 Pustular Syphilide (Secondary), colored.
- 94 Pustular Syphilide (Anal Infection)
- 95 Echthymatous Syphiloderm (Tertiary)
- 96 Congenital Syphilis, Condylomas on Tongue and Angle of Mouth
- 97 Pustular Syphilide
- 98 Gumma of Forehead (colored)
- 99 Gumma of Upper Lip
- 100 Tertiary Syphiloderm of Penis
- 101 Serpiginous Ulcerative Syphiloderma of the Thigh
- 102 Multiple Gummatous Ulcerations of both hands
- 103 Gumma of the Middle finger
- 104 Unusual Scar-Like Remains of Secondary Lesions, "Split-Pea Papules" at the angle of Mouth
- 105 Multiple Gummas of Body
- 106 Papulo-Squamous Syphiloderm (late secondary)
- 107 Roseola (Secondary)
- 108 Pustular Syphilide in a negro
- 109 Chancroid of Penis and Middle Finger (Auto-Innoculation)
- 110 Leucoplakia of Tongue

SYPHILIS OF THE STOMACH

By S S OPPENHEIMER, M D, B B CROHN, M D, A. WINKELSTEIN, M D, and J M MARCUS, M D
MOUNT SINAI HOSPITAL, NEW YORK CITY

SYPHILIS of the stomach is a very rare disease. It is estimated that it comprises less than one per cent of visceral lues. Hartwell believes that of 200 cases in the literature only 25 are authentic. We have been able to collect, in Mount Sinai Hospital, over a period of 25 years, only four instances. Of these, 3

were pathologically proved luetic, and one was a clinical diagnosis, presumably correct.

We are fortunate in being able to demonstrate to you (1) a clinical case, (2) two gross specimens and (3) radiograms, microscopic preparations, photographs and lantern slides.

The patient sitting here is a man, 38 years

fication of the breath sounds or rales heard. The heart was normal.

On questioning the patient he admitted a luetic history. His primary lesion occurred fourteen years ago. An X-ray was taken of his lungs. There was an exaggeration of the bronchial markings, especially in both roots and in the upper half of the left lung. Two sputa examina-



FIG. 1.—X-ray taken July 21, 1924. A parenchymatous infiltration extends out from both root regions to the bases of the lungs. The right lung is further complicated with a pleural effusion.

tions were negative for tubercle bacilli. His Wassermann was 3+. Tuberculosis was excluded because of his negative physical findings and a negative X-ray. Because of a similar experience with six other cases, syphilis of the trachea and bronchi was thought of. A tertiary syphilitic ulceration of the trachea or bronchi might easily account for the hemoptysis, the cough, and the expectoration. The mild toxemia might easily be due to his syphilis. The patient was sent to the service of Dr. Arrowsmith at the Kings County Hospital. There he was bronchoscoped by Dr. M. C. Myerson. At the Kings County Hospital he was X-rayed again. His Wassermann was also repeated. Their reports were as follows: "The Roentgen examination of the chest showed nothing abnormal. The Wassermann reaction was 4+."

Bronchoscopic study revealed the following: "On the anterior wall of the right main bronchus just beyond the carina there was an irregular swelling of moderate degree. This area was dark red in appearance, while the remainder of the bronchus appeared darker red than normal."

This area of swelling was not obstructive. It measured approximately $1\frac{1}{2}$ cm. in length and 5 mm. in width. There were two distinct white areas of ulceration, irregularly round, about 3 mm. in diameter, and situated upon this area of swelling. In the left main bronchus, just at the carina, there was a similar small ulcer surrounded by an area of redness, situated upon the anterior wall. The diagnosis of gumma of the bronchus with beginning ulceration was rendered. Since his bronchoscopic examination the patient improved after a course of salvarsan therapy. On November 1, 1924, his Wassermann was again 4+. He again expectorated some blood. Another course of salvarsan therapy helped. An X-ray taken on March 29, 1926, showed no evidence of pulmonary tuberculosis. (Patient under observation from February 12, 1925, to March 29, 1926.)

Discussion.—The above case and the six others reported in 1924 gave almost a uniform history. Hemoptysis accompanied by cough, expectoration, loss of weight, and symptoms of a mild toxemia were the chief complaints. A picture of pulmonary tuberculosis was presented to the examiner. The negative physical and X-ray examination suggested an early pulmonary tuberculosis. The pathology was apparently not extensive enough to produce either physical findings or X-ray shadows. There are such cases of pulmonary tuberculosis in which the physical findings and Roentgen markings appear two or



FIG. 2.—X-ray taken on August 20, 1924. There is an extension of the lesion over the left base. The pleural effusion is still present.

the lungs, may be a good explanation for syphilis of the lung being so rare an autopsy finding

The clinical picture of pulmonary syphilis is not characteristic. The symptoms simulate those of pulmonary tuberculosis, and, as a rule, a diagnosis of early tuberculosis is made. The cases referred to the clinic were all suspected to be tuberculosis.

I have the pleasure of presenting for your consideration a case of secondary syphilis of the trachea and bronchi simulating asthma, one of tertiary syphilis of the trachea and bronchi, and one case of tertiary syphilis of the lung.

SYPHILIS OF THE TRACHEA AND BRONCHI SIMULATING ASTHMA

Case 1—M S, colored, male, age, twenty-nine years, came to the clinic December 1st, 1924.

History—He complained of wheezing attacks that kept him awake at night. He also felt warm in the afternoon. Because of the wheezing and shortness of breath he has not been able to carry on his usual trade of shoe repairing. Last August he was well. At that time he had a skin eruption which was diagnosed as a syphiloderma. He was not sure when he had his chancre. He thought he might have acquired it with a gonorrhea two years ago. In August, after the appearance of the rash over his body, his Wassermann was 4+. Four weeks after the appearance of the rash he was seized with wheezing attacks which have persisted up to the present date. On admission his temperature was 99°F, pulse 80, respirations 24.

Physical Examination—Loud, large, sonorous sounds were heard over both lungs. His heart was normal.

X-Ray Examination—Except for an accentuation of the bronchial markings, the lungs were normal.

The skin of his whole body showed a brownish, coppery mottling with slight scarring, probably the remains of a macular-pustular eruption. On examining his mouth, over the left buccal mucosa there was a mucous plaque about the size of a twenty-five cent piece. There was congestion of the pharyngeal and palate structures. The uvula was very congested and had an appearance similar to a mucous patch without the sloughing. The late Dr. John A. Fordyce and Dr. Fred Wise called it a "syphilitic angina" of the pharynx. With such pathology in the mouth and pharynx we thought we might be able to explain the sudden appearance of these wheezing attacks to a similar condition in the trachea and bronchi. We referred him to the bronchoscopic clinic of Dr. M. C. Myerson at the Beth Israel Hospital with a diagnosis of syphilis of the mucous membrane of the trachea and the bronchi, causing asthmatic attacks.

Dr. Myerson's report was as follows: "On the

left buccal mucosa there was a mucous plaque about the size of a twenty-five cent piece. There was an acute congestion and slight edema of all the pharyngeal and palate structures. The palate showed several small macular lesions. His larynx showed the same type of involvement as his pharynx. The bronchoscopic findings were as follows: The tracheal and bronchial walls in their non-cartilaginous portions were the seat of the same type of congestion and edema as the structures just mentioned. The mucosa in the cartilaginous portions of the trachea and bronchi showed slight capillary prominences here and there, with an increased redness of the mucosa. On the anterior wall of the right main bronchus, about 15 mm from the bifurcation of the trachea, an irregularly crescentic white area was seen. This could not be wiped away, nor could it be removed by suction, and was identical in appearance with the mucous plaque observed on the buccal mucous membrane. The buccal plaque was observed through the same bronchoscope for comparative study, in this way the similarity of the lesions was definitely established."

The patient was placed on intensive antiluetic therapy. There was an immediate clearing up of his asthma. The patient felt so well he decided he did not need any more therapy. He went back to his shoe repairing. Two months later he returned to the clinic complaining of asthmatic attacks. His Wassermann was again 4+. He was placed on intravenous injections of salvarsan, with marked improvement of his asthma.

DISCUSSION—Osler (2) in his discussion of secondary syphilis mentions the frequency of catarrhal bronchitis as a complication. Perhaps the above case explains this acute catarrhal bronchitis, the eruption in the mucous membrane of the trachea and bronchi being less than occurred in the case reported. A similar condition frequently occurs in the exanthematous diseases and, perhaps, in a similar way one may explain the catarrhal bronchitis which frequently complicates measles and scarlet fever.

SYPHILIS OF THE TRACHEA AND BRONCHI SIMULATING PULMONARY TUBERCULOSIS

Case 11—A J, male, white, thirty-eight years old, came to the clinic February 12, 1925.

History—He complained of a cough for the last two years. Two years ago he had coughed up ½ ounce of blood. On January 3, 1925, he again coughed up ½ ounce of blood. His sputum was blood streaked for a few days following the hemoptysis. He complained of cough, expectoration, loss of weight, night-sweats, and malaise. On admission to the clinic his temperature was 98°F, pulse 68, and respiration 20. His weight was 126 lbs.

Physical Examination—There was no modi-

patient was X-rayed. The X-ray ruled out a tuberculous process. It showed an infiltration of the bases of both lungs with a pleural effusion over the right base. The possibility of a basilar tuberculosis was thought of. I have never seen such a condition without an apex being involved. To make sure we were not dealing with

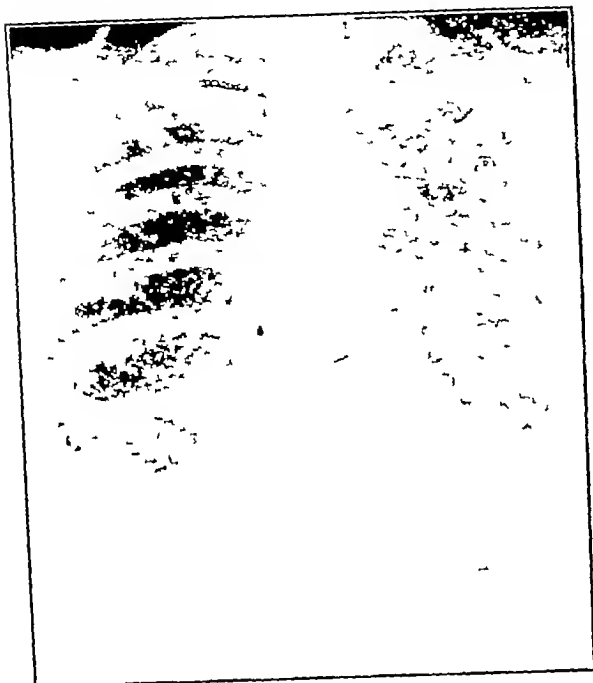


FIG. 5—X-ray taken January 6, 1925. There is no evidence of the previous lesion.

a tuberculous process, a specimen of sputum was examined each day for a week. They were all negative for tubercle bacilli.

On August 11, 1924, the physical findings were unchanged. Her temperature varied between 99.6° F and 100.2° F. On August 20, another X-ray was taken because of the persistent findings. This X-ray showed an increase in the markings at the left base. The density of the shadows was also increased. Very little attention had been centered on the heart shadow. It suggested the possibility of an aortitis. The increase in X-ray shadows and the aortitis made us suspicious of syphilis. A Wassermann was taken and reported 4+. It was repeated and again reported 4+. The patient was placed on mixed treatment on August 27, 1924. Her temperature was 100° F, pulse 92, respirations 21, and weight 135¼ lbs. On September 3, 1924, her temperature was 98.4° F, pulse 80, respirations 24, and weight 135½ lbs. On September 5, 1924, the patient was given salvarsan therapy. There was an immediate improvement in her symptoms. The physical signs began slowly to disappear. The X-rays that followed showed a

gradual disappearance of the lesion. On January 1, 1925, her temperature was 98.6° F, pulse 90, respirations 24, and weight 151½ lbs.

Physical examination—No modification of breath sounds or rales were heard. On June 1, 1925, her temperature was 99° F, pulse 80, respirations 24, and weight 154 lbs. Physical examination. No modification of breath sounds or rales were heard. Examination, March 29, 1926. No modification of breath sounds heard over either lung. X-ray examination confirmed above impression. Her temperature was 98.8° F, pulse 96, respirations 24, weight 160½ lbs.

Discussion—This case is interesting because it was incorrectly diagnosed at first. The patient was ill for three months with cough, expectoration, fever, and all the signs of toxemia. She was then sent to the Vanderbilt Day Camp and placed on rest treatment. Under such routine treatment for three months there was no abatement in the symptoms except for a slight increase in weight. It may be argued that the patient had an intercurrent infection superimposed on a luetic condition. Such a process would not probably last six months. And, again, it may be noticed that an increase occurred in the X-ray shadows of the left lung between July 21 and August 20, 1924. The greater density in the X-ray shadows can be interpreted only as an increase in the pathologic process. It resembled closely the increase in shadows as occurs in malignancy of the lung. After the diagnosis of syphilis was made and the proper treatment instituted, not only the symptoms and physical signs but also the X-ray shadows disappeared. There was some suggestion that spirochetosis may have been the pathology in the lung, that frequently such a condition might produce a 4+ Wassermann. In this case, after the first course of treatments with salvarsan, her Wassermann became negative. Six months later it again became positive in spite of the fact that her lungs showed no pathology. She, therefore, must have syphilis and it is the latter disease which produced the 4+ Wassermann. Smith at Ray Brook had no positive Wassermann reaction in his 23 cases of spirochetosis. At no time were any spirochete demonstrable in her sputa.

It is therefore my opinion that we were dealing here with a case of syphilis of the lung.

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three months following a history that is suggestive of the disease. In the above cases the history of lues with a positive Wassermann reaction threw a different light on the diagnosis.

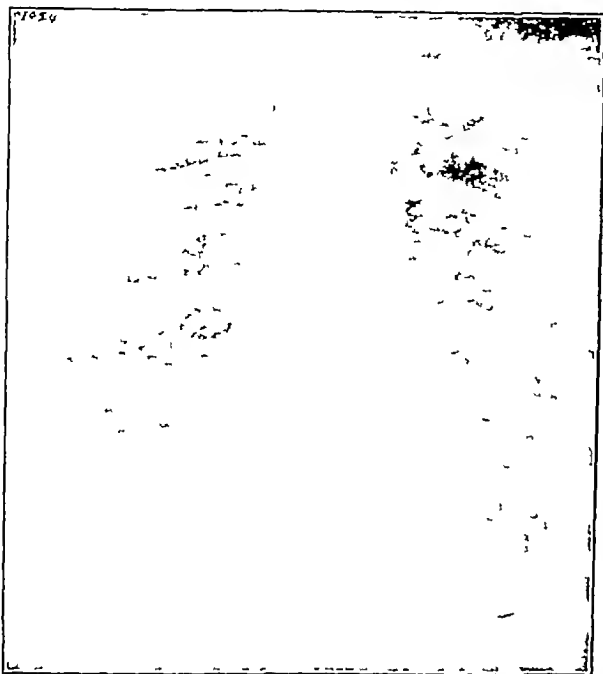


FIG 3—X-ray taken September 19, 1924—sixteen days after antiluetic therapy had been instituted. The pathologic shadows are beginning to clear.

We may summarize as follows. A history of hemoptysis, cough, expectoration, etc., in the face of a normal lung condition, as demonstrated by physical and X-ray examinations, should suggest a possible syphilitic ulceration of the trachea and the bronchi.

TERTIARY SYPHILIS OF THE LUNG

Case 111—E D, female, colored, thirty years of age, came to the Vanderbilt Clinic, June 6, 1924 (See Figures 1 to 5).

History—She had been ill for the past three months, complaining of a continuous cough with a moderate amount of expectoration. She has had night-sweats and felt feverish in the late hours of the day. She was tired easily. She also complained of vague pains in her chest, especially over the sternum. She lost 13 lbs in weight in the last six months. Her chief complaint was cough and expectoration over a period of three months. Her temperature on admission was 100° F, pulse 104, respirations 24. Her weight was 128 lbs. She was referred from the Medical Department as a case of pulmonary tuberculosis. This diagnosis was confirmed because of the physical findings in the right upper lobe and a pleural effusion over the right base.

Physical Examination—Right lung. On per-

cussion there was flatness elicited below the ninth vertebral spine posteriorly and the fifth rib anteriorly. On auscultation, bronchovesicular breathing was heard from the apex to the second rib anteriorly and to the fifth vertebral spine posteriorly. A few moist rales were heard in this area. Over the area of flatness breath sounds were absent. Posteriorly, below the eighth vertebral spine, many moist rales were heard. Left lung. Anteriorly, between the fourth and sixth ribs, showers of moist rales were heard.

A needle was inserted into the lower right chest posteriorly and 10 cc of a clear straw-colored fluid withdrawn.

A diagnosis of pulmonary tuberculosis was made, complicated by a pleural effusion. The patient was referred to the Vanderbilt Bay Camp where she was put under the routine treatment for tuberculosis. Three days later her temperature was 99.2° F, pulse 104. The findings were the same except for a clearing up of the rales over the right apex. In the following month she was examined seven times. The physical findings never varied. Her temperature ranged between 99° F and 100° F. She added 3 lbs to her weight. Her cough and expectoration were not relieved. We still thought we were dealing with a tuberculous process. On July 21, 1924, the patient was examined again. The persistence of moist rales over the right base posteriorly suggested a bronchiectasis and a question of doubt as to tuberculous etiology. The



FIG 4—X-ray taken November 19, 1924—seventy-seven days after antiluetic therapy had been instituted. There is almost a complete clearing of the lesion.

popularized a system of co-ordinating exercises, in which vision is substituted for the disturbed postural sensibility, for the direction of movements. Moderate success was obtained with the use of this method.

Maloney in 1913 published a method that he had elaborated which was based on the following principles (1) Perfect thinking is essential to perfect moving, therefore training in perfect thinking is equivalent to training in perfect moving (2) Psychological as well as physiological elements are contained in all disabilities, this is especially true of tabes, and its treatment should be guided by the relation of these two components (3) The deterioration of attitude in tabes is due to both anatomical as well as mental factors (4) Blindfolding increases the ability to concentrate by eliminating external distraction (5) Relaxation or rest exercises tends to overcome fear states and allows the patient to recuperate quickly after exertion (6) Mechanical appliances as shoes, plates, and foot braces, used temporarily, aid in stabilizing the patient's attitude

To apply Maloney's method, one first teaches the patient to relax in a recumbent position. The patient is blindfolded and taught diaphragmatic breathing and by means of passive movements muscular relaxation is induced. This is followed by the simplest type of movement that can be done at any joint. The movement is first performed for the patient, next the patient attempts to do the movement guided by the physician, then the same movement is done without guidance, and finally the movement is done against resis-

tance. These simple movements are followed by more complicated ones, always done in the order outlined above. Fatigue must be avoided and periods of relaxation should follow each few minutes of active work. When the patient is able to perform all movements co-ordinately in the recumbent position, he is taught to balance and later to creep on his hands and knees. Next balance and progression on the knees alone is practiced, and finally balance in the upright position and walking are attempted. Each step must be taken slowly and only when all of the preceding exercises can be done perfectly without undue fatigue. The mechanical appliances are of great aid in stabilizing the patient's attitude. Re-education of the faulty postural sensibility is done by means of passive movements at the various joints. Postural sense is usually first and most profoundly affected in the smaller joints. It is therefore best to begin re-education in the larger joints and proceed to the smaller ones. Movements, on the other hand, should be started in the smaller joints first. When the patient is able to walk well under protected surroundings he should be taken outdoors and allowed to practice in a secluded place and as he gradually becomes more confident in himself he should be allowed to walk among crowds and under ordinary street conditions.

With this method of treatment I have been able to correct moderate degrees of ataxia in from six to eight weeks. More severe grades of ataxia require longer periods to correct. Even bedridden patients have regained their ability to again walk in public.

THE LABYRINTH TESTS AS AN AID IN THE DIAGNOSIS OF SYPHILIS OF THE CENTRAL NERVOUS SYSTEM *

By RALPH ALMOUR, M D

NEW YORK CITY

THE onset of neurosyphilis is insidious in the great majority of instances. Once established, it may exist for a greater or lesser period of time without producing clinical evidence of its presence. It is during the period of general dissemination of the spirochaetes that the central nervous system is invaded, and during this time headache, pains and vomiting may occur. These symptoms referable to the nervous system are in reality due to the general intoxication which is present and not to organic nervous lesions. They soon disappear, and although the presence of neurosyphilis may be demonstrated in the spinal fluid examination, the disease does not make itself clinically evident until very much later.

I desire to report the results of the functional examination of the ear in cases of neurosyphilis and to present the abnormalities that were found

to exist in the great majority of cases examined. Certain abnormalities appeared with such regularity that I am reporting them as a diagnostic aid.

The types of cases examined fell into three groups: those which had no symptoms referable to the ear, those having a complaint of deafness; and those suffering had no apparent or real loss in hearing but who complained of tinnitus.

The first group of patients comprised twenty cases of neurosyphilis—six cases of tabes dorsalis, eight cases of early paresis and six cases diagnosed as tabo-paresis. They were examined through the courtesy of Dr Oscar Levin of the Skin Clinic at Beth Israel Hospital. All showed on examination of the hearing with the tuning forks a distinct shortening of the bone

* From the Otolaryngological Department of Beth Israel Hospital, New York City.

EXHIBIT OF THE NEW YORK STATE HOSPITAL COMMISSION

By H M POLLOCK, M D,

ALBANY, N Y

THIS exhibit consisted of a series of charts and maps and was devoted entirely to neurosyphilis. The geographical distribution of general paralysis in the State was shown by a map in colors comparing rates of general paralysis first admissions to the civil State hospitals from the several counties of the State in 1925. That a wide difference in rates exist in various sections of the State was clearly demonstrated. This would imply that syphilis is also more prevalent in the counties showing high rates of general paralysis. The map was accompanied by a chart comparing the rates of general paralysis first admissions to hospitals for mental diseases in the several states of the Union in 1910 and 1923. In most of the states the 1923 rates were the higher but in New York State a significant decline in the rate has occurred since 1910.

More detailed information concerning variations in rates in recent years in New York State was shown by a chart giving the annual rates of first admissions with general paralysis to the State hospitals from 1911 to 1925. The chart shows that there was a gradual increase in the rate from 1911 to 1918, and that since 1918 there has been a general decline in the rate. The rate for 1925 was lower than that of any preceding year. An accompanying chart compared the rates per 100,000 of population in the several classes of cities and in rural districts. The chart covered admissions for the five years from 1915 to 1920. The highest average annual rate was found in first-class cities, 10.6, and the lowest in rural districts, 2.9. The general average annual rate for the whole State was 8.7.

Further analysis of rates given in a chart dealing with nativity and race of first admissions with general paralysis in the United States and

New York State showed that the lowest rates are found among the native white population of native parentage, and that much higher rates are found among the foreign-born white. The highest rates of all are found among negroes in New York State, the rate being 36.6 per 100,000 of population as compared with a rate of 5.0 among the native white population of native parentage.

The relative prevalence of general paralysis among the various European races was shown by another chart.

A comparison of discharges and deaths of general paralysis cases, by sex, in New York State and in the United States was shown by two charts. It was demonstrated that the improvement rate is much higher among female cases than among male cases both in New York State and in the United States as a whole, and that the death rate among male cases was much higher than among female, the rates per 1,000 under treatment in the United States in 1922 among males being 304.0, and among females, 261.4. In New York in 1925 the rates were 307.5 and 195.0, respectively.

A chart setting forth the annual economic loss due to syphilitic mental disease in New York State in 1925 estimated the maintenance cost of resident patients in institutions as \$773,343, the loss of earnings of male patients as \$4,438,381, and the loss of earnings of female patients as \$247,203, making a total economic loss for the year of \$5,485,927.

The data on which these charts were based were derived from the Annual Statistical Review of the New York State Hospital Commission and the advance proof sheets of the report of the Federal Census for institutions for mental disease taken January 1, 1923.

THE TREATMENT OF THE ATAXIA OF TABES

By MORRIS CROSSMAN, M D

MOUNT SINAI HOSPITAL

ATAXIA in tabes is one of the most annoying symptoms of the disease, associated with pain, it becomes the bane of the tabetic existence. These two symptoms are chiefly responsible for the mental state usually present in these patients. This mental state, when analyzed, consists mainly of various fears, fear of darkness, fear of crowds, crossing streets, impending disability, and a host of others. The effect of the numerous symptoms upon the mental state varies with the nature of their intensity. Just as the symptoms react on the mental state, so the mental state reacts on the symptoms. In

favorable mental states, pain, ataxia, and other symptoms are diminished, and in unfavorable mental states they are usually exaggerated. On this interdependence of the mental state and the tabetic symptoms rests the basis for the psychological treatment of these symptoms.

This history of tabes abounds with diverse forms of treatment which has produced beneficial results in curing the ataxia. The basis for this improvement can only be a psychological one. Of the many forms of treatment of this symptom, the application of graded forms of exercises is the most logical one. Frenkel in 1897

nine seconds There was a distinct absence of inward pastpointing after turning both to the right and to the left. Caloric tests showed no reactions whatsoever after five minutes douching of each ear Here, of course, is the paradox reaction so often found in hereditary luetic labyrinthitis The diagnosis made was the above, and in addition neurosyphilis was strongly suspected because of the inability to pastpoint inward Spinal fluid examination showed the Wassermann to be three plus, colloidal gold curve 5555431000, albumin and globulin present, sugar normal

Case 3—Woman, age 25 years, had been complaining of a tinnitus and a loss in hearing for ten years She was married and had had three miscarriages She had a large defect in the hard palate due to a healed luetic lesion Her blood Wassermann was two plus Examination of her hearing showed findings characteristic of a bilateral nerve deafness Labyrinthine tests showed shortened after nystagmus, $\frac{1}{2}$ of normal in both directions, shortened vertigo and normal pastpointing The caloric reactions were normal except for the increase in time required to produce a reaction, 1 minute, 20 seconds The diagnosis of luetic deafness of the nerve type was made, neurosyphilis was ruled out because of the normal pastpointing A spinal fluid examination showed a negative Wassermann, normal colloidal gold curve (ten zeros) and no cells

Case 4—Man, age 42 years, previously in good health, the father of two healthy children suddenly noted on coming out of the subway that he could not hear in the left ear He also felt slightly unsteady and had a sensation of falling to the left This attack persisted only for a few hours The deafness, however, continued Examination of the hearing showed total deafness in the left ear and a diminution in bone conduction in the right ear Examination of the vestibular apparatus showed complete absence of all reactions following douching of the left ear and a $\frac{3}{4}$ loss in the duration of the nystagmus after turning to the right, but only a little more than $\frac{1}{4}$ after turning to the left The blood Wassermann was negative The pastpointing reactions, however, showed a distinct inability to pastpoint inward after rotation A diagnosis of neurosyphilis was made Spinal fluid examination showed a four plus Wassermann, colloidal gold curve 5554433100 160 cells to the cmm, increased globulin normal sugar This patient did not remember ever having had any primary or secondary luetic lesions His children and wife were serologically negative

Case 5—Man, age 42 years, consulted Dr S J Kopetzky for a gradual loss in hearing for 16 years Married six years He has no children He had a chancre twenty years ago Functional examination of his hearing showed a nerve deafness as evidenced by his responses to

the tuning forks and to the audiometer Examination of his labyrinth by rotation and by caloric testing gave normal nystagmus, vertigo and pastpointing His blood Wassermann was four plus A diagnosis of luetic nerve deafness was made In view of the normal pastpointing, neurosyphilis was ruled out Spinal examination showed a negative Wassermann, normal colloidal gold curve (ten zeros), no cells, no globulin

In the third group of cases, the chief complaint referable to the ears was a tinnitus These patients had no loss in hearing for air conduction as evidenced either by conversation or by the hearing tests The bone conduction in all, however, was diminished The labyrinth tests showed all reactions to be normal except for the inability to pastpoint inward following stimulation

Case 6—Man, age 31, had a chancre in 1923 He received intensive antiluetic treatment so that at no time after the sixth week of his illness was his blood Wassermann positive Six months after the initial lesion he began to complain of a slight noise in the left ear Neurological examination was negative Examination of the hearing showed a bilateral diminution in bone conduction but no disturbance in air conduction for both high and low tones Functional examination of the labyrinth gave normal nystagmus and vertigo but an inability to pastpoint inward with both hands I wrote the physician who referred the case telling him that I believed the man to be suffering from some form of syphilis of the central nervous system and advised a diagnostic lumbar puncture The spinal fluid showed a four plus Wassermann, 200 cells to the cmm, 90 per cent lymphocytes, colloidal gold curve 555532000, two plus albumin The patient was again treated for one year and re-examination by me at the end of that period showed a normal bone conduction in the right ear and an increase toward normal in the left ear The pointing following caloric stimulation was normal with both hands Following rotation, however, the patient was still unable to pastpoint inward with the left hand on turning to the left This was an improvement over the previous examination On re-examining the spinal fluid, the Wassermann was found to be two plus, the colloidal gold curve normal, the cells reduced to one per cmm, a faint trace of globulin and albumin

Case 7—A man, age 39 years, complained of a slight buzzing noise in his right ear for one week He had no disturbance in hearing He never had, to his knowledge, any venereal disease Functional examination of his hearing revealed normal air conduction for the forks and a slight diminution in bone conduction in both ears Labyrinthine tests revealed normal nystagmus and vertigo, but an inability to pastpoint inward with both hands following rotary stimu-

conduction in both ears. The air conduction for both high and low tones was normal. They complained of no disturbance in hearing. On functional examination of the vestibular apparatus eighteen of the cases showed an abnormal pastpointing reaction following both rotary and caloric stimulation. This in each instance consisted of an inability to pastpoint inward. When the patient was turned to the right, the right hand pointed normally to the right after rotation had been stopped, but the left hand either touched or pointed to the left. Similarly, on turning to the left, the left hand pointed normally to the left, but the right hand either touched or pointed to the right. All other reactions were normal as to character and duration. The nystagmus and vertigo were found normal. In the two cases wherein the pastpointing was normal following stimulation, the diagnosis was *tabes dorsalis*.

All of the twenty cases showed findings in the spinal fluid characteristic of some form of neurosyphilis. In all the spinal fluid Wassermann was positive and the colloidal gold curve of the tabetic, parietic or combined type. Four of the cases, three tabo-parietics and one parietic, were examined after an interval of four months' intensive therapy. In each of the cases the pastpointing reaction was unaltered as to the inability to point inward. The spinal fluid in each case likewise showed no improvement in the luetic reactions. I have not examined any case in this group where the spinal fluid showed a change in the Wassermann reaction or in the colloidal gold curve, but I feel certain that the finding of an inability to pastpoint inward following stimulation will become altered toward the normal as a change for the better is noted. One such case is reported in the other group.

A report of one case in this group will suffice to show what was found in the other seventeen cases.

Case 1—Man, 43 years, married. He had gonorrhea 15 years ago. He does not remember ever having had any luetic lesion. He complained of headaches due to a fall four years previously. His one child is a congenital luetic defective. His blood Wassermann was negative. His spinal fluid Wassermann was four plus, colloidal gold curve 5555432100, 100 cells per cmm, all lymphocytes. Functional examination of the hearing showed a diminution in bone conduction for both ears and a normal air conduction.

	Right	Left	Normal
C 128 air	46	44	45
bone	14	14	20
C 2048 air	37	35	35
C 64	Heard	Heard	Heard

Nystagmus and vertigo following rotary and caloric stimulation were normal in every respect.

The patient was unable to pastpoint inward following stimulation.

Turning	To Right	To Left
Nystagmus	Horizontal, 23 sec. to left.	Horizontal, 24 sec. to right.
Vertigo	.20 sec. to left.	19 sec. to right.
Pastpointing	Right hand to right. Left hand off to left.	Left hand to left. Right hand touches
Caloric 68°	Right Ear	Left Ear
Nystagmus	After 35 sec. rotary to left.	After 33 sec. rotary to right.
Vertigo	.Present.	.Present.
Pastpointing	Right hand to right. Left hand touches	Left hand to left. Right hand touches.
Head Back		
Nystagmus	Changes to horizontal	Changes to horizontal
Pastpointing	Right hand to right. Left hand to left.	Left hand to left. Right hand touches.

This patient was examined again four months later and the same findings were noted on spinal fluid and functional examination of the ears.

In the second group are included all types of deafness that may be produced by syphilis—end-organ, nuclear and nerve trunk lesions, both hereditary and acquired. In the hereditary *luetica*, the greatest number presenting aural lesions show reactions to the labyrinth tests characteristic of an end-organ lesion. The nystagmus and vertigo are either shortened or absent. The pastpointing is either normal or absent depending upon the presence or absence of vertigo. Where the pastpointing is abnormal, and shows the inability of the patient to pastpoint inward following stimulation to the labyrinth, I have found that syphilis of the central nervous system exists in conjunction with the luetic labyrinthitis. Where the pastpointing was normal, the spinal fluid examination likewise showed normal findings.

In the acquired type of labyrinthine syphilis, the finding of an inability to pastpoint inward following stimulation, also speaks for the presence of neurosyphilis. In the cases examined, this reaction was present in all who showed positive spinal fluid findings and was negative in all who showed negative spinal fluid findings, despite the presence or absence of a positive blood Wassermann.

Case 2—A girl, age 13 years, noticed a gradual loss in hearing for the past two years. She had a bilateral interstitial keratitis one year ago. There was no tinnitus, vertigo or equilibratory disturbance at any time. Her blood Wassermann was four plus two years ago, at the time of my examination it was two plus. She had had antiluetic treatment during the entire period. Her father had died of a paralytic stroke due to syphilis.

Functional examination of the hearing both by the forks and by the audiometer showed a distinct nerve deafness in both ears, worse in the left. On rotation, the nystagmus to the right and to the left lasted five seconds and the vertigo

of mercury is tolerated is that the palmitin is very slowly absorbed, taking 3 to 5 days, thus giving an opportunity for simultaneous absorption and elimination

The neosalvarsan is given in doses of 0.1 gr (2 cc of the solution) to a child under two years of age, and is increased in proportion according to age. If more than 2 cc of the solution is to be given, the dose is to be divided into equal parts and given into both buttocks

REACTIONS

Reactions are very rare and when they do occur they are very mild. There have not been observed any reactions from the mercurial injections. Following the neosalvarsan there is rarely an infiltration of the buttock (about 1 in 500 injections). Occasionally transient vomiting occurs several hours after treatment. Herthimer reactions, dermatitis exfoliativa or jaundice have never been observed. Pain at the site of injection is slight. The children appear happy and playful a short time after treatment and remain so during the entire weekly interval.

LENGTH OF TIME TREATMENT IS CONTINUED

Irrespective of serologic report each luetic child is given at least three or four courses of the above described treatment. After four courses of treatment have been given and the serologic findings both of the blood and spinal fluid are negative and there are no clinical manifestations

of the disease, treatment is discontinued and the patient is ordered to return for observation and serological tests at intervals of 3-6 months. If on the other hand there are persistent positive fluid or clinical manifestations of lues, the treatment is repeated with short rest intervals.

RESULTS OBTAINED

The majority of children so treated show a rapid improvement in general health and nutrition simultaneously with the clearing up of luetic lesions of skin, mucous membranes, bones, etc. The best clinical and serological results are obtained in children in whom treatment is begun soon after birth. The older the child is when treatment is first instituted, the more resistant it seems to be to spirocheticides.

Out of a small series of 50 cases at the Out-patient department of the Mt Sinai Hospital admitted during the last 4-5 years, 36 remain under observation and of this number 15, or 42 per cent, have remained clinically well and serologically negative for one year or longer. The remaining 21 cases are under active treatment and are progressing favorably.

CONCLUSION

The above method offers a safe, easy, and simple means of treating congenital lues by the general practitioner as well as the syphilologist, with the most gratifying results.

THE THERAPY OF SYPHILIS

By LOUIS CHARGIN, MD and ABRAHAM STONE, MD

DEPARTMENT OF HEALTH NEW YORK CITY

THE development of modern diagnostic methods, the introduction of the newer antisyphilitic remedies, and our increasing knowledge of the pathology of syphilis have led to a change in our conception of the treatment of disease. Particularly does this apply to the treatment of early syphilis. Formerly, a positive diagnosis of the disease frequently could not be established until the appearance of secondary manifestations, and, as a result, the treatment was often unduly delayed. The newer diagnostic methods make it possible to detect syphilis at its inception, and thus to begin treatment very early in the disease. Treatment during this period, especially before the appearance of a positive Wassermann, offers the best chances for a cure.

There is a general unanimity of opinion at the present time in regard to the standards of antisyphilitic therapy, but certain details of treatment are still a matter of controversy. Numerous plans, varying as to the kind and number of injections, dosage, frequency of treatments, length of rest periods between treatments, etc., have been suggested by various observers. Each

plan has its advocates, but it is perhaps true that at present no one plan can be considered as the ideal, and no one plan is applicable to the disease in all its stages.

The drugs employed in the treatment of syphilis are arsenic, mercury, bismuth and iodides. Of the arsenicals, arsphenamine, neo-arsphenamine, sulph-arsphenamine, silver-arsphenamine, sodium-arsphenamine and other arsphenamines. In the case of mercury, as well as bismuth, an ever increasing number of preparations are being recommended. Each of these drugs has its distinctive value in the therapy of syphilis, and the use of one or the other depends upon the stage of the infection, the character of the symptoms, etc.

The general practitioner has but little opportunity to test for himself the various therapeutic measures advocated. He must necessarily rely upon the opinions of those who have more specialized knowledge, of those who have had the opportunity to evaluate the drugs and methods of treatment from a practical standpoint.

The exhibit on the "Therapy of Syphilis" was

lation A tentative diagnosis of neurosyphilis was made in spite of the fact that there were no clinical stigmata The blood Wasserman examined at two different laboratories was reported negative Spinal fluid examination showed no cells, no globulin, colloidal gold curve normal (ten zeros) but the Wassermann reaction, as reported by Dr Losee, was positive down to the smallest titration I again rotated the patient following lumbar puncture and noted a distinct alteration in the pointing reaction The past-pointing after turning to the left was normal with both hands After turning to the right, however, the inability to pastpoint inward with the left hand persisted

SUMMARY

I do not attempt to explain the reason for the constancy of this reaction in the cases of neurosyphilis that I have examined It possibly may be due to some pressure in the posterior cranial fossa This seemed to be evident in the last case reported wherein the reaction was altered toward normal after the relief of pressure by lum-

bar puncture I am simply reporting my findings, and have arrived at these conclusions

1 The labyrinth tests and the examination of the hearing furnish us with a valuable aid in determining the presence of neurosyphilis in its earliest stages

2 The finding of an inability to pastpoint inward should lead one to suspect neurosyphilis While it is possible that other conditions may produce this faulty reaction, its presence in the majority of cases of neurosyphilis examined by me causes me to recommend a careful search for this disease where the inability to pastpoint inward exists

3 If this inability to pastpoint inward is associated with a diminution in bone conduction, the diagnosis of neurosyphilis becomes a probability

4 The beneficial effect of treatment on neurosyphilis is demonstrable by a return of the past-pointing reaction toward normal

5 I believe that the use of the labyrinth tests should be more extensive in conjunction with the treatment of syphilis so as to determine early invasion of the central nervous system

TREATMENT OF CONGENITAL LUES IN INFANTS AND YOUNG CHILDREN

By HARRY SHERWOOD, M D,

VANDERBILT CLINIC AND MOUNT SINAI HOSPITAL NEW YORK

THE treatment of lues in infants and young children presents more difficulties than the treatment of the same disease in the adult Intravenous medication is not practical and even in the best hands, not always possible Intramuscular medication has not been very popular until recent years The sole method of treatment in these cases has been that by mercurial inunctions This latter method, of course, was insufficient in the majority of cases and at best depended on the thoroughness and regularity with which it was carried out

In 1921 Doctors Fordyce and Rosen inaugurated a new method of treatment of congenital lues at the Vanderbilt Clinic and the Out-patient Department of Mt Sinai Hospital, namely, by means of intramuscular injections of alternate doses of a soluble mercurial salt and neosalvarsan at weekly intervals The injections are given by means of a special needle, known as the "Rosen needle" This latter has as its characteristic feature two slightly curved lateral flanges attached to the hub which conform to the curve of the buttock and enable the physician to hold the needle in place while injecting medication The injections are made in the upper inner quadrant of the buttock, and are followed by massage After injecting without withdrawing the needle, the syringe is disconnected, a small quantity of air is drawn into it, then injected

through needle in order to expel the small quantity of mercury remaining in the bore of the needle

COURSE OF TREATMENT

A course of the above combined treatment consists of 4 mercurial injections followed by 6-8 intramuscular neosalvarsan injections and then followed by 4 more mercurial injections, all at weekly intervals After the completion of the course of treatment, a month's rest is given the patient At the end of this time the Wassermann test is done and according to the outcome of the test, the course of treatment is either repeated or a further rest period is given

PREPARATIONS USED

Mercury is used in the form of "Bichloridol" This consists of bichlorid of mercury incorporated in palmitin and is placed in soft collapsibles Before using, the contents of the collapsible tube are expressed into a sterile syringe and heated in hot water in order to melt the palmitin

The neosalvarsan is used in 1/20 solution (2 cc of sterile distilled water to each 0.1 gm of neosalvarsan) Bichloridol is given in doses of 1/20 gr of bichloride of mercury to a child under two years of age, and 1/5 gr of bichloride of mercury to a child over two years age The reason why such a large dose of bichloride

a platinum wire, a loopful is transferred to a slide and topped with a cover glass. Next, and of importance is the proper use of the oil of cedar, a drop of which is placed on the dark-field condenser, a drop on the under surface of the slide, and a drop on the cover glass. We then have a solid column of oil and glass from condenser to lens. Of the various sources of light, the best is the arc lamp. The search for the organism may now be instituted.

A word of caution is fitting. A positive dark-field is conclusive—a negative one is by no means final. Many and repeated attempts on the same and successive days should be made before a genital lesion—suspicious or otherwise—is pronounced negative. Puncture of an enlarged gland that drains the site of infection, and examination of some of the serum obtained may yield the spirochaete. When it is difficult to obtain serum, the injection and withdrawal of one or two drops of saline may give positive results.

The spirochaeta pallida is a flagellated protozoon with no undulating membrane. Microscopically, it is unlike most other spirochaetes. It has three distinct motions—a rotary one, a sharp linking movement, and longer waving one. The spirals are geometrically regular and sharply and deeply cut, numbering 6 to 26 turns. The organism is 6 to 15 microns long, about a quarter of a micron in diameter. It is important to note that the spiral form is maintained at rest as well

as when in motion. It must be distinguished from the following organisms:

S. Vincenti, which is a delicate organism as long as the *S. pallida* but with very few curves. *S. Vincenti* is always seen in symbiosis with a fusiform bacillus. It stains readily.

S. refringens, which is thicker and band-like, less regular and with more flattened curves possessing under the dark-field a yellowish tint.

S. microdentium closely resembles *S. pallida* although usually somewhat shorter. Its usual habitat is the mouth, and is of importance therefore only when the lesion is present in or near the mouth. Of all the spirochaetes, this one is most apt to be confused with spirochaeta pallida. Culturally it may be differentiated.

S. buccalis is 12 to 20 microns long but has only 4 or 5 large shallow irregular curves. It also is an inhabitant of the mouth.

To sum up

The earliest diagnosis of syphilis may be made by the detection of the spirochaete in the primary lesion.

The dark-field is the easiest and most accurate method for that purpose.

Waiting for a positive Wassermann or for the appearance of a secondary rash is inexcusable in the presence of a primary lesion.

It was to bring out these facts that this part of the symposium was staged.

THE NEW YORK STATE HEALTH DEPARTMENT EXHIBIT

By ALBERT PFEIFFER, MD

Director Division of Social Hygiene AA Surgeon USPHS

THE novelty of the exhibit and the feature which attracted the most attention were the films showing syphilitic lesions and lesions simulating syphilis. These hundreds of photographs of typical and of unusual cases were well worth serious consideration. These films were provided by the U. S. Public Health Service co-operating with the State Department of Health. A general idea of the extensiveness and of the value of these films is indicated by their titles:

Treponema Pallidum	Noguchi
Miscellaneous Lesions	Paris Museum
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Early Syphilis	Mackee
Late Syphilis	Mackee
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Possibly the instructive value of this display was not altogether responsible for the attention

it attracted. The battery of eleven day-light projecting machines in line was impressive in itself. Ten of these delmeascopes were provided with films of twenty to one hundred photographs and were operated by the visiting physicians. The eleventh one was automatic and ran continuously. The success of this unusual method for displaying effectively hundreds of pictures warrants its use more generally.

MOULAGES

One of the greatest disadvantages in clinical teaching is the difficulty in getting actual cases showing typical lesions at the proper time. Usually this is cared for to a large degree by adapting the didactic work to the clinical material at hand. This is comparatively simple and successful in medical schools but for the occasional demonstration or brief post-graduate course this method is impracticable. When clinical material is not available, life-like reproductions in wax are useful. If these models are accurately and expertly made they are very satisfactory and they are available at any and at all

prepared with the object of epitomizing for the general practitioner the present status of anti-syphilitic therapy. It was aimed to make the exhibit practical and concrete, so that the visiting physician might derive from it some definite and useful information. At the same time, however, the therapeutical basis for the use of the remedies and methods suggested were presented and discussed.

The exhibit included a series of charts which gave a resumé of the various agents employed in the treatment of syphilis and of the main plans of treatment in use. Some of the plans detailed were:

The Chronic Intermittent Plan—This plan, introduced by Neisser, has been modified later by various syphilographers. It consists of regular courses of arsphenamine and mercury, or arsphenamine and bismuth injections, alternating with periods of rest during which no treatment is given. This plan is the one most widely accepted and used at the present time. A course usually consists of 8-10 arsphenamine injections, given 5-7 days apart and 12-15 mercury or bismuth injections, given once a week or oftener. Each course is followed by a period of rest, usually of about 4-8 weeks. Further courses, alternating with rest periods, are then given, depending upon the clinical and serological findings.

The Very Intensive Plan—This method was suggested by Scholtz, and modified by Pollitzer. It aims to saturate the patient with the arsenical at the beginning of each course of treatment, so as to affect a rapid sterilization. For this purpose the arsphenamine injections are administered in fairly large doses and at very short intervals (daily, for the first three days) at the beginning of the course. This is followed by a series of mercury injections, and the course is terminated by another series of arsphenamine injections.

The Mixed-Injection Methods—This plan of

treatment was introduced by Linser. It consists of injecting a mixture of neo-arsphenamine and bichloride (or other similar mixture) instead of administering these drugs separately. These treatments are given in courses of 8-10 injections, alternating with periods of rest.

The Continuous-Treatment Plan—This plan, suggested by Almquist, differs from the others in that the treatments are given continuously, without any rest periods. The drugs employed are administered in alternating courses. First, a course of arsphenamine is given, 6-8 injections, this is followed by 6-8 weekly injections of mercury, then again a course of arsphenamine, followed by a series of mercury injections, etc. These series of treatments are continued, if indicated, for as long as a year.

In addition to the charts, a practical demonstration was given of drugs employed, the mode of preparation, and manner of use. The various arsphenamines were mixed and prepared for administration. The glassware, syringes, needles and other apparatus used for this purpose were exhibited. A large number of preparations of arsenic, mercury and bismuth were shown, and the merits and demerits of the various products discussed.

Another feature of the exhibit was a series of slides, emphasizing important points and axioms in anti-syphilitic therapy, which were thrown upon a screen by a stereomotograph. The slides called attention to the need for beginning the treatment early, for continuing it over a sufficiently long period of time, to the need for care in the technique of preparation and administration of the drugs, to the need for careful and repeated examinations of the patient, the importance of detecting early the by-effects of treatment, and to other salient factors in the care of the syphilitic.

The charts, slides and demonstrations were augmented by personal discussions, which served to clarify the various points raised.

THE SPIROCHAETE DEMONSTRATION

By DR ADOLPH JACOBY, DR MAXIMILIAN NEMSER, DR WALTER SECKEL

DEPARTMENT OF HEALTH NEW YORK CITY

TO obtain the best therapeutic results in the treatment of syphilis, the diagnosis should be made as early as possible after infection has taken place. This is best done by examining the suspected lesion for the spirochaeta pallida. The method of choice for such examination is the dark-field.

In the dark-field method the organism is shown in the living state. The method, though exact and somewhat painstaking, is easily mastered. It was with the object of demonstrating this technique that this particular part of the symposium was staged. In examining for the spiro-

chaeta pallida by the dark-field method, a matter of prime importance is the making of the preparation. The lesion must be free from drug or medicament—free for a period of at least 24 hours preceding the examination. It must be carefully wiped, all debris and pus removed and then sufficiently irritated at the margin either by being wiped with gauze or otherwise, to produce an exudation of serum. The exudate at the edges is more apt to show the organism. It is well to wait until clear or almost clear serum covers the irritated surface, sufficiently in quantity to make a suitable preparation. By means of

a platinum wire, a loopful is transferred to a slide and topped with a cover glass. Next, and of importance is the proper use of the oil of cedar, a drop of which is placed on the dark-field condenser, a drop on the under surface of the slide, and a drop on the cover glass. We then have a solid column of oil and glass from condenser to lens. Of the various sources of light, the best is the arc lamp. The search for the organism may now be instituted.

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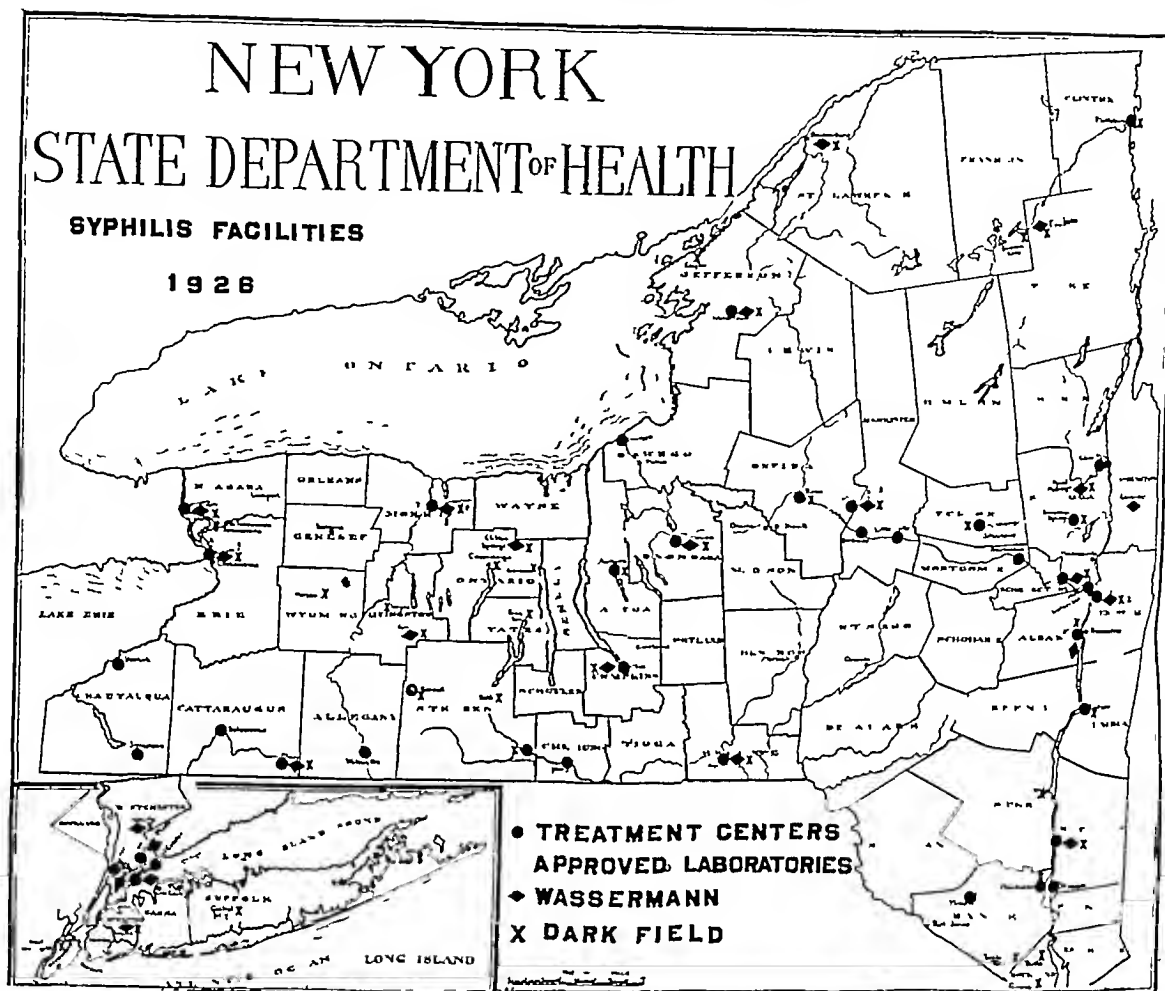
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MOULAGES

One of the greatest disadvantages in clinical teaching is the difficulty in getting actual cases showing typical lesions at the proper time. Usually this is cared for to a large degree by adapting the didactic work to the clinical material at hand. This is comparatively simple and successful in medical schools but for the occasional demonstration or brief post-graduate course this method is impracticable. When clinic material is not available, life-like reproductions in wax are useful. If these models are accurately and expertly made they are very satisfactory and they are available at any and at all



times The Division exhibited several hundred excellent wax models. These moulages impressed physicians again with the truth of the old statement that syphilis manifests itself in manifold ways and hence has earned for itself the name of the "great imitator," and that since syphilis simulates almost every disease it is imperative that it shall be eliminated in every diagnosis.

The models assist materially in classifying differential diagnoses.

The ever present large and interested attendance gathered about the table of wax models demonstrated clearly the popularity of this exhibit.

CHARTS

One of the most effective ways to interpret figures and to impress the relative change in facts over a period of time is to visualize the data by means of charts. Statistics then take on form and have new significance.

The following descriptions give a general idea of the type of statistical charts displayed.

1 Graphs showing the slow, constant and

healthy growth year by year in the number of physicians searching for syphilis, indicating that there are many, a majority which is getting larger, practising physicians who discover or eliminate syphilis in their diagnoses.

2 A map of the State showing the location of laboratories approved for Wassermann tests or dark field examinations and also the location of the free treatment centers where physicians can refer their indigent cases or have part of the treatment and tests carried out. These clinics also afford the practising physician an opportunity for post-graduate study.

3 A graphic presentation of the continuous and rapidly increasing use of approved laboratories by physicians for diagnostic and prognostic purposes.

4 A diagram showing the cases of syphilis and gonorrhea brought under treatment for the first time each year which makes clear that the number of infected persons seeking treatment for the first time is not tending to decrease but rather remains practically constant.

The statistical data would seem to indicate that syphilis offers a very fertile field to the prac-

tising physicians, especially those who wish to give service both to the individual and to society or those interested in study and research. Perhaps there is no disease which draws so extensively on knowledge, skill, judgment and resourcefulness of a physician as the diagnosis and treatment of syphilis. Yet it responds most satisfactorily under approved intensive modern treatment when administered early in the disease.

LITERATURE

Whereas visual education has come to be recognized as of enormous value and the display of hundreds of clinical cases and photographic and wax reproductions is of infinite value, for the purpose of serious study it is necessary or at least desirable to have the detailed information carefully and clearly stated in permanent form for ready reference. For this nothing can take the place of the printed word and so in order to supplement the other more ephemeral exhibits there was an abundance of practical literature for distribution.

Transactions of the Conference of Venereal Disease Control. Officers of the State Health Departments and USPHS, 1924. Bulletin No. 77.

Preparation and Administration of Arsphenamine and Neoarsphenamine, USPHS Bulletin No. 774.

Sulpharsphenamine in the Treatment of Syphilis. Albert Pfeiffer, M.R.C.S., L.R.C.P.
Fundamentals of Syphilis. Brunet and Pfeiffer.

Compilations of the Laws and Regulations Relating to Gonorrhea, Syphilis and Chancroid.

Syphilis, Gonorrhea and Chancroid. Pamphlets supplied to physicians for their venereally infected patients.

Samples of literature for lay people.

Some physicians and dentists are keeping a supply of the various pamphlets or post cards listing such pamphlets issued by the State Health Department on the tables in their waiting room. In this way the public is put in touch with the

available material and the physicians report that the patients are more willing to continue their treatment over the entire period necessary in syphilis after they have read the literature and are assured from an authoritative source of the need of such supervision.

SUMMARY

Several rather definite objectives were kept in view in preparing the exhibit. The casual comments and reports seem to indicate that these ideas carried across successfully in many instances.

1 To create a determination in every physician to eliminate syphilis in each diagnosis.

2 To stimulate the physician to utilize every modern diagnostic measure, the dark field, blood and spinal fluid tests, etc., in examinations.

3 To impress the physician with the need for intensive treatment. Modern diagnostic and treatment methods are sufficiently well developed to eliminate syphilis, if intensively and extensively utilized. Unquestionably there will be improvements in the methods of diagnosis, laboratory tests, therapeutic agents and the methods of treatment, but the knowledge available today is adequate to cope successfully with syphilis without waiting for the further advancement of scientific methods. Sulpharsphenamine makes it practical for any general practitioner to treat syphilis successfully, at least in the early stages when not complicated by cardio-vascular or neuro-syphilitic involvement.

4 To encourage physicians to learn early diagnosis. Lesions should be definitely identified early in order to avoid subsequent complications of the heart, aorta and nervous system. It is not necessary nor desirable to wait until the Wassermann becomes positive. Physicians should learn to diagnose syphilis early by the dark field examination and to administer intensive treatment. The common presence of aneurysms and neuro-syphilis can be regarded as proof that many patients are either not diagnosed as specific cases or that the treatment has been incomplete.

SYPHILIS IN THE NEGRO

By HOWARD FOX, M.D.

NEW YORK UNIVERSITY NEW YORK CITY

The prevalence of syphilis in the American negro is undoubtedly greater than in the white race. It is, however, incorrect and unjust to claim as some do without proof that half or more of the negroes of this country are syphilitic. From statistics that I formerly compiled from the Central Dispensary in Washington, it was found that the disease occurred approximately one and one-half times as often in negroes as in whites. The figures showed that

in 15,000 white (in round numbers) there were 621 cases (4.1%) of syphilis, while in 32,000 negroes, approximately 1,900 (5.9%) were affected with syphilis. Rudolph Matas found a proportion of fifty-one cases of syphilis in negroes as opposed to twenty-eight in whites in one thousand patients.

The age at which infection occurs is apparently earlier in the American negro than in the white race, due to lower standards of mo-

rality, the prevalence of the disease, and the earlier age of maturity. Zimmermann found that a much greater number of infections occurred before the twentieth year in negroes than in whites.

The severity of the disease is in general milder in the negro race and it appears to be more amenable to treatment. It is most probable that the proportion of late manifestations (nervous and visceral) would be lessened if the negro could appreciate more fully the seriousness of the infection and the importance of continuing treatment after the early symptoms had disappeared.

The manifestations of syphilis show many variations in frequency and severity in the two races for which numerous causes have been suggested. The initial lesion in the negro is more frequently multiple and less apt to be extragenital than in the white race. At least one syphilitic manifestation may be considered as a racial characteristic. This is the so-called annular syphilide, which occurs as an early (secondary) eruption. It is seen most frequently on the face, less often on the upper portions of the trunk. The lesions are formed by centrifugal extension of papules, mostly of the flat variety, the central portions becoming deeply pigmented and surrounded by elevated borders. Concentric circles and polycyclic figures at times produce a most striking and diagnostic picture.

Among the other early syphilides the macular type is less frequently observed in negroes than in whites, doubtless due in part to the dark color of the skin. Palmar lesions are also less common in this race. Pustular syphilides, on the contrary, are much more common in negroes than in whites. The type composed of small pustules resembling variola is especial-

ly difficult at times to recognize, numerous patients with this variety of eruption having been unnecessarily quarantined until the true nature of the disease was recognized. Condylomata, especially in women, are decidedly more common in negroes than in whites, Hazen even stating that all syphilitic women suffer from this manifestation at some time. The papular types of syphilis also tend at times to be unusually scaly, especially upon the lower extremities, due in part, to the sparing use of soap and water.

Pruritus is said to be more common in cutaneous syphilis of negroes than of whites. While the negro may complain of itching he seldom presents much objective evidence of scratching, the rule holding good for both races that the lesions of syphilis do not itch. Syphilitic adenopathy is more common in the negro race and the same in true of iritis.

The late (tertiary) manifestations of the skin are approximately equal in occurrence and severity in both races. In the negro bone lesions are more frequent than in whites, and syphilitic elephantiasis of the vulva appears to be relatively common. Cardiovascular syphilis is more frequent in the negro than in the white, the proportion being two to one according to Zimmermann. Neurosyphilis is less frequent in the negro, especially tabes and paresis. Cerebrospinal syphilis is probably of equal frequency in the two races.

Leucoplakia, while not a direct manifestation of syphilis, is preceded by syphilitic infection in a sufficiently large number of cases to warrant a relationship between the two diseases. Leucoplakia is generally agreed to be rare in the negro. I found it to be unusually so in the full-blooded negro during my previous long service in the Harlem Hospital.

THE AMERICAN SOCIAL HYGIENE ASSOCIATION

By WALTER M. BRUNET, M.D.
NEW YORK CITY

On Thursday, April 1st, the day devoted to a demonstration of syphilis, the American Social Hygiene Association arranged an exhibit under the direction of Dr. Walter M. Brunet of the Association's Department of Medical Measures.

Stereopticon slides which approached the prevention of the venereal diseases from the public health standpoint were continuously displayed. These slides showed, first, how other contagious diseases have been combated and then the modern program for combating the venereal diseases. A number of wax models presented graphically the various stages in the development of syphilis. These, together

with scientific anatomical charts and samples of recent pamphlets on the venereal diseases emphasized the medical measures aspect of the program.

In order to point out also the educational approach in the control and prevention of the venereal diseases, part of the film "The Gift of Life," as adapted for use in the delinescope, was shown. This machine is easily manipulated and the film may be run through quickly or slowly and turned backward as well as forward by the person studying it. The educational poster exhibits, "Youth and Life" and "Keeping Fit," were on display as well as book and pamphlets dealing with sex education.

DEMONSTRATION OF THE KAHN TEST

By R. L. KAHN, Sc.D

Department of Health Lansing Michigan

THE Kahn test for the serum diagnosis of syphilis is based upon the immunological principle of precipitation. It comprises a routine test with serum for the general laboratory diagnosis of syphilis, a quantitative procedure for determining the relative number of serum reacting substances, particularly in treated cases, and a spinal fluid procedure to be employed in the diagnosis of neurosyphilis.

There are several reasons why the Kahn test has proved a reliable and practicable procedure in the experience of so many workers. Among the more important are the following:

Stability of reagents—Antigen, the one reagent required aside from patient's serum and physiologic salt solution, is easily prepared and standardized and is a stable product. Antigen can be distributed from a central laboratory with no danger of deterioration or change.

Only few minutes required for test—The test does not require incubation. The total time for completing the test from the time blood is drawn from the patient is less than one hour. (Separation of serum from blood clot by centrifugation, 15 minutes, heating of serum at 56° C, 30 minutes, performance of test, 5 minutes.)

Sources of error reduced to minimum—The test is relatively free from sources of error, due to the comparative simplicity of technique and to the fact that no step in the test is removed from the eye of the worker who performs it. This is not true with tests which require incubation.

Dependability—The test is specific for syphilis, judged by clinical findings. It seems to be less influenced than the Wassermann test by pathological conditions other than syphilis. It is also somewhat more sensitive than the Wassermann test in early primary and treated syphilis.

The Kahn test was demonstrated at half hour intervals during the demonstration day, using positive and negative serums furnished by the New York City Department of Health.

The test requires three tubes, each containing a different proportion of serum and diluted antigen, as outlined:

	Tube No		
	1	2	3
Serum	3 1	6 1	12 1
Diluted antigen, cc	0 05	0 025	0 0125
Serum (heated) cc.	0 15	0 15	0 15

Completion of Test—Shake 3 minutes. Add 1 cc saline to Tube 1 and 0.5 cc. to Tubes 2 and 3. Syphilitic sera show precipitates, non-syphilitic sera remain clear.

Interpretation of Results—Results are read on basis of 4+, 3+, 2+, 1+ and ±, depending on distinctness of precipitate. The final result is the average of the findings in the three tubes. Thus if precipitation is complete (4+) in all three tubes, the total reading is 12+ and the final result is 4+. If some tubes show only partial precipitation and the total reading, let us say, is 6+, then the final result is 2+.

SOME QUESTIONS ASKED DURING THE DEMONSTRATION, WITH ANSWERS

1 Is it recommended that the Kahn test be performed by physicians in connection with their private practice?

No. The test should be carried out by trained laboratory workers. There is no reason, however, why physicians who are located in isolated areas removed from laboratories could not learn to perform it. We know of physicians who are performing this test with good results in China and other parts of the world removed from medical centers.

2 Are there any institutions which employ the Kahn test without the Wassermann?

Aside from numerous hospital laboratories, the Michigan Department of Health made the Kahn test official, October, 1925, and the U S Navy, December, 1925. In the former institution alone over 32,000 Kahn tests have already been reported to physicians with satisfactory results.

3 Are Kahn tests with small numbers of serums as dependable as with large numbers?

Yes. One serum may be examined with perfectly dependable results. Of course, the finding should be controlled by at least one known positive and negative serum examined at the same time.

4 Is the Kahn test specific for syphilis in the febrile diseases?

So far as we know, the test is not only specific in the febrile diseases but also in non-febrile pathological conditions of a non-syphilitic character. The occasional non-specific results of the Wassermann test in such conditions are undoubtedly due to changes in the serum which increase the fixation powers of complement. The Kahn does not employ complement and is thus free from non-specific complement fixation or anticomplementary reactions. It should not be assumed, however, that the test is perfect. No biological test can approach the perfection of a physical or chemical test.

5 What is the significance of a four plus

Kahn test in the absence of clinical evidence of syphilis?

Our findings indicate that a four plus Kahn test means syphilis. However, a Kahn test or any laboratory test should be considered only as a single manifestation of syphilis to be interpreted in the light of clinical evidence or a history of infection. The final diagnosis of syphilis and the decision as to treatment of a given case are problems of the clinician.

6 What does the quantitative test actually show in serums from treated cases?

The blood of a patient before treatment may show 400 reacting units, at the end of the first course of treatment 200 units, and at the end of the second and third courses 120 and 40 units, respectively. The routine test in all these examinations would be four plus and give no indication as to the serologic effect of the treatment. Some institutions, such as the U S Naval Medical School, report to physicians the results of the quantitative procedure in the case of all serums giving a four plus reaction. This gives the physician the relative potency of serums before treatment with which to compare results after treatment.

7 What is the procedure when there is insufficient serum for a regular test?

If 0.3 cc of serum is available, a two-tube test is run, employing the lesser amounts of antigen dilution. If only 0.15 cc of serum is available a one-tube test is run, employing the least amount of antigen dilution. In this case, the report to the physicians should state "Negative (or positive) in one tube, insufficient for a complete test which requires three tubes." If only one drop (0.05 cc) of serum is available a one-tube test may be made, employing 0.005 cc of diluted antigen.

8 Does one need to titrate the antigen for the Kahn test, every time the test is performed?

Antigen is titrated or standardized once and is then ready for use without further titration. Miss Kendrick showed in our laboratory that an antigen has the same titre when first prepared as two years later.

REFERENCES

Young, C. C., and Co-Workers. Studies on the Kahn Precipitation Test, Reprint Series, Nos. 26-47, Michigan Department of Health, Lansing, Mich.

Kahn, R. L. Serum Diagnosis of Syphilis by Precipitation. Governing Principles, Procedure and Clinical Application of the Kahn Precipitation Test. Williams and Wilkins Co., Baltimore, Md.

BOOKS AND PERIODICALS ON SYPHILIS

By FRANK PLACE

NEW YORK ACADEMY OF MEDICINE

From the wealth of publications on syphilis the following works were chosen from the Library of the Academy of Medicine and shown in the Syphilis Exhibit

For the Research Student

TITLE	AUTHOR	DATE
Die Syphilis	E. Meirrowsky	1923
The Experimental Chemotherapy of Spirillooses	Paul Ehrlich and S. Hata	1911
Abhandlungen über Salvarsan	Paul Ehrlich	1911
La Syphilis héréditaire tardive	Alfred Fournier	1886
The Pathogenesis of Salvarsan Fatalities	Wilhelm Wechselsmann	1913

For the General Practitioner

Syphilis	Henry H. Hazen	1919
The Third Great Plague	John H. Stokes	1917
Syphilis as a Modern Problem	William A. Pusey	1915
Sifilis hereditaria tardia	Mariano R. Castex	1920
Recent Methods in the Diagnosis and Treatment of Syphilis	Carl H. Browning and Ivy Mackenzie	1924
Biology and Treatment of Venereal Diseases	J. E. R. McDonagh	1915
La Syphilis	C. Levaditi and J. Roche	1909
Neurosyphilis	E. E. Southard and H. C. Solomon	1917
Syphilis and Venereal Diseases	C. F. Marshall and E. G. French	1921
Handbuch der Salvarsantherapie	W. Kolle and K. Zieler	1925
A System of Syphilis	D'Arcy Power and J. Keogh Murphy	1914
Syphilis and the Nervous System.	Max Nonne	1913

Syphilis	Burton Peter Thom	1922
Syphilis	Loyd Thompson	1920

For the Laboratory Worker

Handbuch der Serodiagnose der Syphilis	Carl Bruck	1924
Serum Diagnosis of Syphilis by Precipitation	R L Kahn	1925
The Wassermann Test	Charles F Craig	1921
Die Serodiagnose der Syphilis	Carl Bruck	1909
Laboratory Diagnosis of Syphilis	Hidevo Noguchi	1923

Historical

Lettres sur la Syphilis	Ph Ricord	1856
Schmachtende Venus	Nicolaus Heinsius	1703
Die Berliner Syphilisfrage	S Neumann	1852
Syphilis	Jonathan Hutchinson	1887
Abhandlung über die Venerische Krankheit	Christoph Girtanner	1873
Syphilis—(The 50-page Poem, pub 1530, from one of whose characters, Syphilus, came the name of the disease)	Hieronymus Fracastor	1911

Atlases

Atlas of Syphilis	Leo V Zumbusch	1922
An Atlas of the Primary and Cutaneous Lesions of Acquired Syphilis in the Male	Charles F White and W Herbert Brown	1920
Syphilis und Syphilisähnliche Erkrankungen des Mundes	Ferd Zinsser	1922
Atlas der Experimentellen Kaninchensyphilis	P Uhlenhuth and P Mulzer	1914

Journals

American Journal of Syphilis		
Acta dermato-venereologica (Stockholm)		
Giornale italiano di dermatologia e sifilologia (Milano)		
Bulletin de la Société française de dermatologie et de syphiligraphie		
Annales des maladies vénériennes		
Archives of Dermatology and Syphilology (Chicago)		
Sammlung zwangloser Abhandlungen aus dem Gebiete der Dermatologie und Syphilologie (Halle a S)		

EDITORIAL COMMENT

The task of securing descriptions of the exhibits was almost as great as that of assembling the material that was shown. The exhibition was new and novel, and there was no precedent for guidance. When the exhibitors were invited, they asked what they should show and say, and each was given freedom of choice. While there was individuality in the exhibits, yet the result was a harmonious whole.

When the demonstrators were invited to make permanent records of their exhibits, their in-

dividualities of style were even more marked than their exhibits. They felt that while their reputations could endure the strain of a transient demonstration, yet it was quite another matter to set a standard for others to emulate. The descriptions which were handed in followed a great variety of forms, from set papers to vivid outlines in few words. All were of a high order, and the writers merit the praise of the medical profession for presenting the entire subject of syphilis in a graphic form.

PAPERS READ IN THE AFTERNOON SESSION

WHAT PRICE SYPHILIS?

By WILLIAM F SNOW, M D, AND WALTER M BRUNET, M D

The American Social Hygiene Association, 370 Seventh Avenue, New York

THE history of syphilis, like that of other dangerous communicable diseases, is one of gradually discovering the identity, cause, and treatment of the disease. In contrast to many other diseases, however, there have been long gaps between the discoveries. The identity of syphilis dates back at least as far as the discovery of America, but the identity of the spirochete of syphilis was demonstrated scarcely two decades ago after more than one hundred announced discoveries of a casual organism had been disproved. The treatment of syphilis in the modern sense dates back hardly fifteen years. Moreover, it may be said that the diagnosis and treatment are still in an early formative stage. When we add to these the further facts that syphilis is most insidious in its attack, imitative of other diseases, indirect in its methods of maiming and killing its victims, and favored by the complicated relations between the moral and the medical aspects of treatment and eradication, we can understand why organized efforts to combat the disease have been so long delayed.

Theoretically syphilis can be eradicated more readily than most of the other dangerous communicable diseases, but practically eradication can be realized only through full co-operation of the people, the physicians, and the health officers all working intelligently and continuously together. This means an immense cost of time and educational effort. The last ten years have seen great strides toward the development of a practical program for the essential teamwork of these three groups. In a survey of 227 cities in 1913 physicians were found to have little interest in the problem of combating the venereal disease, only 4 cities had free venereal disease clinics, 3 provided hospital care for dangerous cases, 46 provided laboratory diagnostic facilities, and only 7 made any attempt to study prevalence and control of the disease by requiring notification. By contrast, in 1923 practically all of the 100 cities having a population above 70,000 have regulations for notification and show increasing use of reports, 82 per cent have free laboratory diagnostic facilities, 100 per cent provide free clinical treatment to supplement the work of private physicians, 65 per cent provide hospital or other facilities for isolation of dangerous cases, 79 per cent recognize the venereal disease as a major subject in their public health education programs. These statements are largely applicable to smaller cities also. Every state has a bureau of venereal diseases or assigns special personnel for this purpose to its division of

communicable diseases, and provides for diagnostic laboratory aid to physicians and institutions throughout the state.

The notification of syphilis cases in New York State, for example, has risen until it ranks among the first three or four diseases reported, for the years 1921-23 the order of rank was Measles (161,330), Pneumonia (84,879), Syphilis (75,090), Tuberculosis (71,356), Scarlet Fever (67,728).

For the United States 200,584 cases of syphilis were reported to State Boards of Health in 1925, the cost of these cases alone on any basis of estimate produces a staggering sum. Both in private practice and in clinics the treatment of syphilis has shown encouraging gains in the number of patients who remain under treatment until discharged. All of the cities now have general nursing service for venereal disease patients in either hospitals or clinics or in both, and nearly a third have one or more nurses doing field work. Over one half provide some trained social workers for follow-up of patients who discontinue treatment.

The public cost of these advances is reflected in the setting aside of from 1 to 3 cents or more per capita for venereal disease work exclusive of expenditures of hospitals and private agencies. But the real answer to the question "What Price Syphilis?" depends on the basis of calculating the estimates. Whether in terms of dollars, lives, ill health, inefficiency, or social misery, the cost of syphilis will probably outrank that of any other preventable disease. Many studies and careful judgments of syphilologists indicate that 10-15 per cent of the adult population is infected. Hospital surveys of all patients, based on Wassermann tests, show 20 per cent or more, and some institutions have estimated that at least 10 per cent of their entire annual expense is due to venereal diseases, of which cost syphilis is responsible for a large proportion. Perhaps the two outstanding groups of cases for which the work of the physician will count most both for patients and for public welfare are the industrial group and the mothers and infants group. As an illustration concerning the first of these two groups, may be mentioned the valuable and suggestive studies of syphilis in its scientific and sociologic aspects made by Dr. John H. Stokes and Dr. Helen E. Brehmer. They analyzed 3,000 unselected histories of the Mayo Clinic with special reference to syphilis among railroad men and other occupational types. Their findings showed that the disease for that series

of cases was 8 times as prevalent among railway employees as among farmers. For example, Dr Joseph S Lawrence found in his studies 88 per cent of venereal diseases urban, 12 per cent rural in New York State. Dr Stokes discovered that 26 per cent of cases were infected between 17-20 years of age and 32 per cent between 20-25 years, or approximately 60 per cent before the twenty-fifth year of age, while 91 per cent had become infected by their thirty-first year. Such figures have great significance both for the physician and for the public in counting the costs of syphilis—particularly the ultimate costs of missed cases.

Experience seems to warrant the statement that fully 50 per cent of cases are not detected by general medical examination alone, and in 40 per cent or more cases even the Wassermann blood test will probably not be conclusive. Spinal fluid examinations and neurologic findings are evidently essential parts of effective work in detecting many syphilis cases. And all these tests must often be applied in the absence of any history whatever of exposure, or of symptoms directly related to syphilis. The important thing is to get the cases under treatment at the beginning of the infection. For the individual this gives the greatest promise of cure or arrest of the disease, for the public the greatest assurance of successful protection.

Such observations inevitably lead to the conclusion that the medical profession must look with especial care for syphilis among patients from 15 to 30 years of age, and must co-operate in keeping infected cases under competent treatment and observation for long periods of years. This means also inevitably that a large part of the costs must be shared by voluntary agencies and the public, because these expensive and exacting diagnostic and treatment methods can not be paid for fully by many patients and can not be contributed by the physicians alone. The costs of all such work must be added in computing the total price of syphilis to any community or to the nation.

The second group of cases to which I wish to allude in this statement of costs comprises children particularly. Perhaps the greatest tragedy in the whole story of syphilis relates to its attack upon children, and as a matter of the future of the race this is also the basis of its greatest cost. Untold number of infants die before birth or in their first year of life, because of the disease transmitted from their parents, others live on with defective bodies or minds blind or deaf. President Ray Lyman Wilbur in his inaugural address before the American Medical Association said "When we can keep the spirochetes of syphilis out of the body of every new-born babe we shall have added enough to human life and happiness to heal the wounds of the great war." Dr Whittredge Williams found that syphilis con-

stituted the most important single factor in the causation of foetal deaths—being responsible for 34.4 per cent of all deaths in his series between viability and the first two weeks of the puerperium. The results of treatment for both mother and child in such cases has been remarkably encouraging. In general it may be said that when we find evidence of syphilis in one member of a family, we should adopt the principle of studying every member. Dr Solomon says, "One of the saddest points about congenital syphilis is that it is so often unrecognized, through carelessness, indifference, or ignorance of parents, doctors, social workers, or institutions, and thus the beneficent results to be obtained by treatment are lost or delayed to the patient." The earlier the treatment is instituted, the better the chance of preventing disabling symptoms. White and Veeder made intensive efforts to treat and follow up a series of 443 congenital cases. Lack of interest of parents led many to discontinue treatment and only 308 could be followed to the end results. Of these 22 per cent were recorded as cured, 35 per cent improved, 17 per cent unimproved, 25 per cent died. Their conclusion from these unsatisfactory efforts was that at present the most desirable thing to do is to reach the syphilitic woman or mother before or during pregnancy. In other words, many believe that the solution of the problem of hereditary syphilis lies in prevention rather than cure, and prevention in this sense must be applied largely by the practicing physicians and staffs of prenatal clinic service. Whether such service be paid for or given without being recorded in money values, it ought to be estimated and added to the total price we pay for syphilis and its control.

Naturally much effort has been devoted to other phases of prevention. In armies and navies a considerable measure of success has attended chemical prophylaxis measures when carried out with great attention to detail and thoroughness of enforcement. In civil life, however, such measures have thus far proved practically worthless except where physicians as a matter of private practice have directed patients with the same degree of personal care and supervision which is given to those exposed among military forces. Prophylaxis in its larger meaning includes, of course, all other measures for prevention, and much has been done to lessen the opportunities and probabilities of exposure of susceptible persons. The continuous campaign against commercialized prostitution, the growth of protective measures for young people, the development of sound sex education and character training, are all beginning to have their effect. The prevailing opinion among health officers and syphilologists that fewer fresh cases of syphilis occur now than in previous years seems to have much to support it. Apparently the cost of syph-

ilis may be expected to decline markedly in the next ten years

In view of the discussion which is to follow in the symposium this paper need not go into detail regarding any phase of measures for reducing the costs of syphilis, but it may be of interest to summarize the outstanding points in current health department practice for the control of the venereal diseases

I Efforts to find all cases as soon as possible after infection, and to decide in each case what measures will best protect the public from infection

1 *Provision of clinical examination and advice facilities*, to encourage persons who believe that exposure to infection may have occurred to obtain promptly, proper advice and instruction

2 *Provision of diagnostic laboratory facilities* to aid physicians and staffs of clinics and hospitals to make diagnoses of syphilis

3 *Provision of case study facilities* to enable the responsible official or authorized physician to determine on the basis of the circumstances in each case what, if any, special aid, restriction, isolation, or quarantine measures may be required

II Efforts to secure effective treatment of each case with due regard to avoiding the infection of other persons

1 *All necessary assistance* to private physicians, clinics and hospitals, in providing treatment and follow-up service for infected persons

2 *Health department clinic facilities* to supplement so far as may be necessary the venereal disease work of private physicians, clinics and hospitals

III Efforts to inform the public regarding the dangers, modes of infection, and methods of prevention of syphilis and to induce them to apply this knowledge to their protection individually and collectively

1 *Specific instruction pamphlets* furnished to patients and those exposed to infection to ensure understanding of the problem

2 *Health education measures* to inform the general public regarding the dangers and control of venereal diseases (including syphilis)

IV Efforts to obtain and record data related to carrying out the program, and to evaluating the effectiveness of each measure adopted

1 *Reporting of venereal diseases* including syphilis by identification symbol, under such conditions as may prove necessary, according to dangers of transmission of the infection to other persons, in relation to each of the groups of cases classified for action

2 *Supplementing notification by securing follow-up data* on cases discharged from treatment or transferred to other physicians or clinics, on causes for failure to continue treatment, and on other matters concerned with the best treatment of the patient and protection of the public.

3 *Tabulation of data collected for administrative use* of the health officer in reference to prevalence, diagnosis, treatment, cure, infection of others, advice and care for contacts, and to similar problems in the control of the venereal diseases (including syphilis)

It will be seen that for any large measure of success this program must receive the support and hearty co-operation of the medical profession. The serious efforts to study this question as a problem of the private practitioner which have been made by such medical organizations as the Kings County Medical Society, the Academy of Medicine, and medical groups in Syracuse, Cattaraugus County, Buffalo and other cities and counties illustrate how encouraging are the indications that the physicians are determined to do their part in reducing the price of syphilis to the people of New York State. The general co-operation extended by physicians to the venereal disease division of the State Health Department and to the Department of Health of New York City and of other cities also shows how earnestly the members of the New York state association have begun to take up the task of reducing the damage done by this great imitator of other diseases.

This annual meeting and the devotion of one day to syphilis is one of the milestones of progress in this great battle for humanity. With the continued active work and co-operation of the physicians the health departments may confidently expect to bring syphilis under control and greatly reduce its prevalence in succeeding generations.

SYPHILIS IN PREGNANCY *

By ALFRED C BECK, M D

THE diagnosis of syphilis is much more difficult in women than in men. In the male the patient himself discovers the primary lesion. Its characteristics are easily observed by his physician and the specific organism may readily be obtained. Thus a positive diagnosis is made before the appearance of secondaries. Even prior to the discovery of the spirochaeta-pallida and the Wassermann reaction, the diagnosis of syphilis in the male was much easier. A chancre of the penis always led to a keen search for the appearance of secondaries. As a result even mild secondaries usually were observed and the tentative diagnosis of syphilis was confirmed.

In women the primary lesion seldom is found by either the patient or her physician. It has a tendency to disappear rather rapidly and as a rule leaves no scar. In our series of 144 pregnant syphilitic women only 6 gave a history of a primary sore.

Secondary lesions very often are overlooked in the female. Possibly this is due to the fact that they usually have innocent infections. Their sexual life does not lead them to anticipate the luetic consequences of promiscuity. For this reason, together with the fact that primary lesions seldom are evident, mild secondaries often pass unobserved. To repeat—*the man anticipates his syphilis. He looks for it and he finds it when it appears. The woman does not anticipate her infection. She does not look for it and usually does not observe it when it appears.* History and physical examination in our 144 syphilitic women revealed the presence of luetic lesions in only 34 cases.

Syphilis in women is best discovered by its effect on the products of conception. Pregnancy in untreated cases usually terminates in the birth of a dead macerated fetus or a living syphilitic infant. History of the previous pregnancies is perhaps the most valuable data that may be obtained for diagnostic purposes. 95 of the 144 syphilitic women had been previously pregnant. In 71 or 74 per cent of these the various pregnancies terminated as above. Occasionally all of the pregnancies will go to term and result in the birth of apparently healthy children. Upon investigating such families we have found that most of these supposedly healthy children have syphilis. We, therefore, cannot rule out syphilis when the patient tells us that all of her pregnancies went to term and resulted in the birth of healthy children. We must rule out congenital syphilis in these apparently healthy children before we may assume that the patient was free from syphilis at the time of her previous pregnancy.

The routine Wassermann test is of inestimable

value in our work. Whenever a patient's blood is strongly positive and the patient's history is otherwise negative the test is repeated in order that we may eliminate the possibility of laboratory error. While we admit that occasionally a patient's blood may be strongly positive during pregnancy and may become negative after delivery, even though she received no treatment, we do not let this fact influence us in the management of our cases. We therefore treat all of our patients vigorously even though no evidence of syphilis other than the Wassermann is present at the time, since we have found that investigation of the husband and the other children as well as subsequent events usually prove that the patient undoubtedly has syphilis.

In our clinic it is rather difficult to obtain blood for the Wassermann reaction from the husbands of our patients. Only 51 of the 144 husbands co-operated with us in this respect. Forty-two of these had a positive reaction.

TREATMENT

It is our custom to begin anti-syphilitic treatment as soon as the diagnosis is made irrespective of the period of gestation. We give 6 intravenous injections of salvarsan at weekly intervals. At the same time intramuscular mercury injections are started and continued for a period of 12 weeks. If, after this course of 6 salvarsan and 12 mercury injections the Wassermann is still positive, a second similar course is given. If the reactions are severe the dose is diminished. The urine should be observed very carefully while the pregnant woman is receiving salvarsan. Albuminuria or evidence of toxemia should lead to either temporary discontinuance of treatment or a diminution in the dose. One of our patients died two days after she had received the usual dose of salvarsan. It was impossible to get an accurate history of her condition subsequent to the time of her last treatment. From the meagre information that was obtained, we feel that she died of a fulminating toxemia possibly secondary to renal damage caused by the salvarsan. The clinical picture was not that observed in salvarsan poisoning.

Immediately after the delivery of our syphilitic patients their infants are referred to the department of pediatrics by whom they are treated and observed throughout their infancy.

END RESULTS

The 144 syphilitic women included in this series were cared for by our service during a part or the whole of 166 pregnancies. All had

* From the Department of Obstetrics and Gynecology of the Long Island College Hospital.

ilis may be expected to decline markedly in the next ten years

In view of the discussion which is to follow in the symposium this paper need not go into detail regarding any phase of measures for reducing the costs of syphilis, but it may be of interest to summarize the outstanding points in current health department practice for the control of the venereal diseases

I Efforts to find all cases as soon as possible after infection, and to decide in each case what measures will best protect the public from infection

1 *Provision of clinical examination and advice facilities*, to encourage persons who believe that exposure to infection may have occurred to obtain promptly, proper advice and instruction

2 *Provision of diagnostic laboratory facilities* to aid physicians and staffs of clinics and hospitals to make diagnoses of syphilis

3 *Provision of case study facilities* to enable the responsible official or authorized physician to determine on the basis of the circumstances in each case what, if any, special aid, restriction, isolation, or quarantine measures may be required

II Efforts to secure effective treatment of each case with due regard to avoiding the infection of other persons

1 *All necessary assistance* to private physicians, clinics and hospitals, in providing treatment and follow-up service for infected persons

2 *Health department clinic facilities* to supplement so far as may be necessary the venereal disease work of private physicians, clinics and hospitals

III Efforts to inform the public regarding the dangers, modes of infection, and methods of prevention of syphilis and to induce them to apply this knowledge to their protection individually and collectively

1 *Specific instruction pamphlets* furnished to patients and those exposed to infection to ensure understanding of the problem

2 *Health education measures* to inform the general public regarding the dangers and control of venereal diseases (including syphilis)

IV Efforts to obtain and record data related to carrying out the program, and to evaluating the effectiveness of each measure adopted

1 *Reporting of venereal diseases* including syphilis by identification symbol, under such conditions as may prove necessary, according to dangers of transmission of the infection to other persons, in relation to each of the groups of cases classified for action

2 *Supplementing notification by securing follow-up data* on cases discharged from treatment or transferred to other physicians or clinics, on causes for failure to continue treatment, and on other matters concerned with the best treatment of the patient and protection of the public

3 *Tabulation of data collected for administrative use* of the health officer in reference to prevalence, diagnosis, treatment, cure, infection of others, advice and care for contacts, and to similar problems in the control of the venereal diseases (including syphilis)

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to call them such, contribute to the delay of treatment in the early cases. The first of these is the practice of making diagnoses on the clinical appearance of the primary lesion, in the belief that chancre and chancroid can be distinguished from each other by physical characteristics. So dangerous do I believe this notion to be that I decline to teach or to allow my medical students to learn that there is any way to tell the one from the other except by laboratory methods. It is, I believe, a sound cardinal principle to make no final diagnosis of chancroid, until four months have elapsed from the onset of the genital lesion. It is equally cardinal not to treat as syphilis any lesion which is not demonstrably such (darkfield or Wassermann test, or both) unless one is prepared to follow through the full procedure for syphilis. In the doubtful case, observation for syphilis and local treatment for chancroid only after all means of immediate diagnosis of syphilis have failed, becomes the rational practice. Every genital lesion is thus potentially a chancre until it is finally proved otherwise by time and laboratory tests. Such reversal of the orderly forms of the past will be disturbing to the settled mind, but its practical virtues will, I feel confident, be demonstrated by the coming generation. Exhaust every resource, then, to make a diagnosis of syphilis, if all local laboratory tests fail, begin treatment for chancroid, but repeat the blood Wassermann test at short intervals for four months.

The second misconception involves the use of arsphenamine before the appearance of the secondary eruption. It is impossible here to go into the arguments which have been advanced to discountenance the use of arsphenamines in early syphilis on the ground that they interfere with the development of the patient's resistance or immunity mechanism. Such objections to arsphenamine are based, so far as I can determine, first, upon a decade of improper or insufficient use of the drug and failure to use it in proper combination with mercury, and, second, upon a misconception of the value of the body's defense mechanism against untreated syphilis. If arsphenamine and mercury are properly used in combination, the difference between what the unaided defense and the best modern treatment can accomplish appears to be the difference between 05 per cent arrest without treatment, and 64 to 97 per cent arrest with treatment. Mercury by mouth, to which the conservatives pin their faith, seemed in a study of several hundred cases which I made with DesBrisay to have yielded 10 to 18 per cent arrest. Nor does there appear to be any convincing evidence that effective modern treatment is responsible for an increase in neuro-syphilis as is sometimes contended. Ineffective, desultory, unsupported use of the arsphenamines is dangerous. But even this is not half so dangerous to

the public health, or even to the individual himself, as is the withholding of this drug from the patient with early and infectious syphilis.

Obsolescence of the "Abortive Cure"—The literature of the first five years of the arsphenamine era reflects constantly the conception that syphilis is in the early days or weeks of its course, a local disease, confined to the chancre and its adjacent lymphatics. Up to 1917, clinicians have remained in practical ignorance of Neisser's and Brown and Pearce's demonstration that the disease is a general infection, with organisms present in the bone marrow, spleen and testis, within a few days after its invasion of the body, and days or even weeks before the appearance of the chancre. This concept of a local infection led to the notion of an easy abbreviated or shortened "abortive cure." Most of the figures on therapeutic results presented in the great survey of the German Dermatologic Congress in 1921 deal with short courses and abortive cures. It would appear that one of the first duties of the modern syphilotherapist is to stop the leaking of "uncured" cases through this misconception of a local stage of the syphilitic infection, and to make the modern slogan, "Treat to maximums, not minimums." We may wisely cease to consider that there is an easily cured, a benign, trivial or local syphilis, for there is no possible way of demonstrating its existence in any given case, and all the evidence is against there being any considerable proportion of such cases. Let us rather think of all early syphilis as severe, grave, worthy of our utmost efforts and the patient's best cooperation, and "treat to maximums," as if each case were the worst with which we had ever been called upon to deal.

The Problem of the Rest Interval in Early Syphilis—One of the most interesting features of the forthcoming publications by Moore and Kemp of the treatment results obtained by them at the Syphilis Clinic of the Johns Hopkins Hospital, is their evidence that superior results are obtained by doing away entirely with rest intervals in the treatment of early syphilis. As one who has long contended that the early infection must be under one or another kind of effective treatment continuously throughout the first two years, this demonstration is to me especially gratifying and convincing. It appears from their study that the keeping of the patient on alternating mercurial (inunction) and arsphenamine treatment has a strikingly better effect on the Wassermann curve than have intermittent procedures involving periods of complete rest from all treatment. Treatment studies by Becker and myself, while not directly concerned with this question, supported the desirability of a similar system from the standpoint of ultimate results. I think it sound, therefore, to commend to you such a scheme of treatment for your early cases.

strongly positive Wassermans as well as other definite evidence of syphilis. No cases, therefore, are included in which the diagnosis was based solely upon serological findings.

Thirty-three of our patients went into labor before salvarsan could be given. Nine of these gave birth to living syphilitic infants and 16 resulted in still births. Eight or 24 per cent of these 33 untreated pregnant women gave birth to living children which showed no evidence of syphilis.

At least one course of anti-syphilitic treatment was given to 76 women. Sixty-four or 84 per cent of these went to term and were delivered of apparently normal infants. Of the remaining 12, 6 gave birth to living syphilitic infants and 6 terminated in still births.

From 1 to 5 injections of salvarsan were given to 57 cases. Forty or 70 per cent of these terminated in the birth of apparently healthy infants. Ten had still births and 7 were delivered of living syphilitic children.

Some of the infants included in this series have been under observation 7 years. In only two instances have children which were healthy at birth shown evidences of syphilis. In one the Wassermann became positive at four years of age. The other died of syphilitic meningitis when it was three years old. Only careful observation over a long period of time will lead to an accurate opinion as to the prognosis in these cases.

SUMMARY

History and physical findings aided in the diagnosis in only 23.5 per cent of our cases.

74.7 per cent of the women who had been previously pregnant gave a pregnancy history which was suggestive of syphilis.

Occasionally syphilitic women carry all of their pregnancies to term and give birth to living infants. Careful observation shows most of these infants to be syphilitic. Syphilis therefore cannot be ruled out when a patient states that all of her children are living and well.

The Wassermann reaction is a most valuable aid in the diagnosis of syphilis during pregnancy. The so-called false positive Wassermann due to pregnancy usually is real and other evidences of syphilis can be found if a careful investigation is made.

Salvarsan should be given as soon as the diagnosis is made irrespective of the period of gestation.

Eighty-four per cent of the women who received six or more injections of salvarsan gave birth to living infants which have shown no evidence of syphilis.

Prognosis as regards these apparently non-syphilitic infants must be guarded.

(I wish to acknowledge my indebtedness to the genito-urinary and pediatric departments of the hospital for their co-operation in the care of these patients.)

PROBLEMS AND METHODS IN THE TREATMENT OF SYPHILIS

By JOHN H. STOKES, M.D.

Professor of Dermatology and Syphilology, School of Medicine, University of Pennsylvania

WHAT are the critical problems and the accomplishments of modern treatment methods in syphilis? Speaking categorically and didactically, and with apologies for the lack of discriminating shading unavoidable in a fifteen-minute summary, I should say that they are these:

A Justified Emphasis on Early Treatment of Early Syphilis—For more than a decade, the syphilologist has preached *a priori* the importance for the "cure" of syphilis of days, hours, and minutes gained in the treatment of the chancre and secondaries by the utilization in diagnosis of the darkfield and recently of the local or tissue Wassermann test. The demonstration in actual figures, of what it means to the patient to receive his first injection of arsphenamine and his first course of treatment while the Wassermann reaction is still negative on the blood, has, however, had to await the accumulation of reports from clinics all over the

world, which only now are beginning to assume a sufficiently final quality to permit of sound discussion. It is now possible to say with quite reasonable accuracy that to fail to make a diagnosis, or to delay or withhold treatment from any patient with early syphilis, until the blood Wassermann reaction has become positive, makes approximately the difference between a 92 to 97 per cent outlook for radical cure, and a 64 to 75 per cent outlook. The physician, therefore, who through lack of proper equipment or training, or through misconceptions regarding the morphologic diagnosis of the chancre or the alleged dangers of arsphenamine, withholds effective treatment until the blood is positive and the secondary stage established, has cost his patient about one-fourth of his chance for complete recovery.

Two current misconceptions, for I make bold

* From the Department of Dermatology and Syphilology, School of Medicine, University of Pennsylvania.

of physical diagnosis have too long paraded their autopsy studies of advanced aortic regurgitation and photographs of perforating and ruptured aneurysms, and discourses on symptoms and signs expressive of our own diagnostic shortsightedness rather than any virtuosity in the detection of disease. The emphasis of the future, if we are to perform our preventive duty in treatment, must be on earlier warnings—on the accentuated ringing harshening aortic second sound, the fluoroscopically detected early dilatation of the aorta, and the aortic presystolic murmur, rather than on the *cor bovinum*, the capillary pulse, the diastolic murmur and the thrill. The best results in cardiovascular syphilis (and it is indeed the ubiquitous syphilis of later years) are only obtainable in early cases. Let us then increase the proportion of such cases by the most suspicious alertness and the most determined observational control.

Observational control itself is the great problem of modern syphilotherapy for upon it depends, at one and the same time, the protection of the patient from the uncertainties of what we often too rashly call "cure," and the evaluation of our own treatment results. We shall do the cause of effective treatment for syphilis nothing but good if we speak in terms of arrest, not "cure," for of the latter there is no convincing standard. We shall advance knowledge a century in a decade if today we begin to insist for every person with syphilis on observation throughout life.

A problem which is doubtless very real to many of you concerns the possibility of an increasing resistance on the part of syphilis, as a disease, to the treatment measures which we bring to bear upon it. With the majority of physicians this takes the form of increasing complaint about the fixed or resistant positive blood Wassermann reaction in the early case, the patient who by all the gods and guide-books, should be cured by what we have done for him. There is a real issue here, but complicated of course by the fact that few practitioners are using the methods which published work is showing will produce the best possible results. Some syphilis will in all probability relapse, no matter how treated, and more of it will fail of cure as long as relatively less effective arsphenamine derivatives and second-class insoluble mercurials displace the most powerful drugs in our armamentarium. But even discounting the wholesale deficiency of much that passes as modern treatment for syphilis, the spokesman (Silberstein) for one of the most effectively organized clinics in Europe (Scholtz clinic), whose treatment methods and results stand critical examination, believes that there has been a definite increase in the resistiveness of syphilis as measured in the persistent positive blood Wassermann test. Silberstein finds that 23 per cent of cases today become irre-

versible to the Wassermann test by the use of methods when ten years ago were producing 100 per cent of reversals. The possibility that syphilis may turn our flank in this fashion is well supported by experimental evidence (Klauder). What course then shall we pursue with the patient who presents an irreversible or relapsing fixed positive blood Wassermann reaction? While to some extent we may regard him as the possessor of an active defense mechanism, and hence favored rather than the reverse, my clinical advice based on several surveys, would be to regard him as the unfortunate possessor of an obstinate infection, likely to attack his cardiovascular or his nervous system if it has not already done so. Every patient with a fixed positive Wassermann reaction should have a spinal fluid examination before his situation is even discussed, and should be kept under observation by an expert heart man from year to year, especially after the fifth year of his infection. As treatment for the fixed positive Wassermann, first of all, treat all early syphilis long and energetically. Then utilize the principle of varied attack, and shift from one arsphenamine to another, giving bismuth determinedly in alternation with more effective mercurials (soluble salt) and as a last resort trying perhaps the effect of fever therapy, either as non-specific protein shock, or by malarial infection.

The marriage of the patient with syphilis offers one of the genuine problems of this as of all other eras in which syphilis has beset mankind. We are all familiar with the five-year rule, and the injunction that a patient must be symptom-free for two years before marriage is permitted. If I were categorically to summarize my warnings on the matter, I would say, never base a permission to marry solely on a Wassermann test, and especially do not trust a negative test or repeated negative tests in an early case as a guide to the resumption of unprotected intercourse. Do not trust appearances in the woman, for she may be a carrier of infection to the child months or years after all clinical and serologic evidence of syphilis has disappeared. Do not trust shortened treatment courses, or "modern methods." Try to introduce all the time possible between the day of infection and the day of marriage, for time is the great sterilizer in syphilis. And finally, use common sense. Try to keep syphilis in the family, so to speak. Advocate a "precautionized marriage," if marriage there must be, not with abstinence, which will rarely be practiced, but with protection, contraception, preconceptional treatment, and prenatal treatment of the expectant mother.

Recent Advances—Bismuth—Completely to express oneself in this tabloid fashion on so important a drug is of course impossible. Yet a few principles are beginning to stand out in regard to its use. It should not be regarded as a

as will keep them continuously under the influence either of arsphenamine, mercury, or bismuth during the first year, with sufficient overlapping in the form of simultaneous use of two drugs, to insure that the patient does not relapse while his immunity is being built up by the slower acting agents in the group

The Value of Prolonged Treatment—Another substantial result of the modern evaluations of treatment now in process of publication from various sources, is the re-demonstration of an old principle—that syphilis is a disease which is worn out, rather than crushed. Our over-confidence in the miracle-working powers of chemotherapy has for a time eclipsed this still most fundamental rule of syphilotherapy. Moore and Kemp have furnished its most massive demonstration in relation to early syphilis. They found in a study of more than 400 cases, half of which had been observed for three or more years, that with seronegative primary syphilis, in which the patients received one to eight injections, relapse occurred in 76 per cent of cases, following six to twelve injections, relapse in 54 per cent, following thirteen to twenty injections, relapse in 14 per cent, and following twenty-one to forty injections, no relapse whatever. No prettier demonstration of the value of prolonged intensive use of arsphenamine and mercury could be asked. In seropositive primary syphilis, and florid secondaries, the figures are confirmatory both of the value of prolonged treatment and of the greater incidence of relapse once the patient becomes Wassermann positive. Following one to eight injections in florid secondary syphilis likewise, for example, relapse occurred in 90 per cent, after six to twelve injections, in 67 per cent, after thirteen to twenty injections, 48 per cent, and after twenty-one to forty injections, 23 per cent. Becker and I in a smaller group (116 cases) were able graphically to indicate the same facts, and Mutschler has published an interesting comparison of the better results obtained with two courses of twelve injections as compared with one course. In another aspect of syphilis, namely, prenatal or heredosyphilis, I was similarly able, in a survey of two hundred cases, to demonstrate the steady rise in the proportion of good and excellent results with prolonged treatment in what is essentially an aspect of late syphilis. I think, then, that it may be safely proposed as a guidepost to modern treatment methods, that not one arsphenamine course, but three or four, and not three or four injections, but six, eight, and ten per course, should be our ordinary requirement, more or less irrespective especially of the blood Wassermann findings, to which too many of us too readily pin our faith.

The Weak Points in Modern Syphilotherapy—No longer limiting ourselves to the field of early syphilis, consider for the moment the outstand-

ing shortcomings of our modern therapeutic practice. Among the general sources of difficulty, especially in late syphilis, I should rate the practitioner's unfamiliarity with the "therapeutic shock" or Herxheimer reaction, as one of the commonest. The first injection of an arsphenamine inflicts upon the syphilitic patient at all stages of the disease, a pronounced shock due to the flaring up of the local process by irritation of the organisms present. If this shock occurs in vital structures such as the nervous system or the circulatory system, serious or even disastrous results may ensue. Hence the practitioner should learn to prepare patients who have sustained such involvements with mercury or bismuth and the iodides, a slower approach, before he begins the use of the arsphenamines, if he wishes to reduce treatment complications and ultimate damage to a minimum. One could almost make it a safe rule never to begin the treatment of syphilis acutely involving the special sense organs, the brain, the heart and coronaries, the aorta or the liver, with arsphenamine. They should all be "prepared" with mercury or bismuth.

The second source of difficulty is the therapeutic paradox, aptly so named by Wile, in which the patient, with a serious involvement of an important organ following the use of such a drug as arsphenamine, is made worse or dies of the "cure" of his disease, his structures unable to compensate for the healing changes too rapidly induced by treatment. The heart and the liver are conspicuously affected by this too often disastrous situation, whose remedy, as in the case of therapeutic shock, is, of course, the slow preparation of the patient with iodide and mercury, or perhaps bismuth, before, or even altogether in place of, arsphenamine therapy.

A third source of difficulty concerns the comparatively late stage at which the two major problems of modern syphilology—involvement of the nervous system, and of the cardiovascular system—come to clinical recognition. The emphasis of medical teaching in neurology in the past has been upon the fixed pupil and the absent knee jerk, the grandiose delusion and the apoplectic form seizure in neurosyphilis, rather than upon that infinitely more vital asymptomatic period in which only the spinal fluid, or the fundus of the eye, displays the warning of what is to come. Systematic early and repeated examination of the spinal fluid must, therefore, be practiced by the physician not as part of diagnosis in late syphilis, but as part of treatment in early syphilis, if the possibilities of our modern therapeutic methods are to be realized to the full. It is a sound rule that no practitioner is adequately managing a patient seen with chancre or secondaries, who has not insisted on a complete spinal fluid examination within the first year. So also in cardiovascular syphilis, the text-books

The treatment of the tardive heredosyphilitic patient and especially of those with interstitial keratitis can be greatly intensified, with admirable results, as shown by the recent study of Carvill and Derby, who succeeded in protecting the second eye from involvement, a hitherto almost unheard of feat in 19 per cent of cases, and reduced the incidence of relapse from 27 per cent to 36 per cent. Ophthalmologists who have minimized the value of the arsphenamines in particular, in this condition, have surely not employed the drugs in accordance with modern standards. The combined use of arsphenamine (606), a soluble mercurial or bismuth, and large doses of iodine (60 to 150 grains a day) can produce results of the very first order in this heretofore most intractable and crippling complication.

The Results of Treatment—In the treatment of syphilis results are so distinctly the product of methods, that one hesitates to present accomplishments without a full discussion of the procedures by which they were obtained. It may, however, stimulate you to a renewed confidence in your potential grasp of the situation, and a renewed energy in study and observation, if I briefly epitomize the statistical experience on which I base the statement that I regard syphilis as a genuinely treat infection. In early syphilis, as I have said, effective treatment, available to any patient, produces, so far as present knowledge will carry us, 75 to 100 per cent "cures." In syphilis of the late types, results are modified by the scars and residua of the disease. Yet in spite of this, syphilis of the bones yields more than 90 per cent excellent and good results from both clinical and serologic standpoints. Syphilis of the stomach yields 79 per cent excellent and good results, syphilis of the liver under persistent careful treatment (and no visceral aspect of the

disease has a poorer outlook), 58 per cent excellent results and 80 per cent improved, and heredosyphilis in all its aspects is slightly improved in 83 per cent and attains excellent and good results in 59 per cent. In interstitial keratitis, a study based on a comparatively unfavorable material, late in coming under treatment, showed improvement aggregating 66 per cent. In neurosyphilis, long the accepted Waterloo of syphilotherapy, recently reported results without tryparsamide include 91 per cent excellent and good results in meningeal (early) cases, 74 per cent in cerebrospinal syphilis, 48 per cent excellent and good results in tabetics, with improvement in 85 per cent, and poor results in vascular and parietic neurosyphilis. The late Dr Fordyce reported in meningo-vascular syphilis, 79 per cent improved and 32 per cent "cured", and in tabes dorsalis 25 per cent cured and 83 per cent improved. The rule of no results by modern methods in paresis was broken by the advent of tryparsamide, in which asymptomatic paresis (serologic paresis or paresis sine paresi) yielded to three different groups of investigators, results ranging from 80 to 100 per cent good, and early symptomatic paresis results ranging from 35 to 60 per cent good. Using only the often invoked blood Wassermann criterion, 94 per cent of early cases in our experience become Wassermann negative after from twelve to twenty-nine arsphenamine injections, and ninety injections, and 78 per cent of latent, late and hereditary cases with an average duration of 13 years, were made negative on the blood with the same treatment. Here, too, as in all treatment results in syphilis, there stands out that most fundamental and all-inclusive of principles—which I offer as the alpha and omega of modern syphilotherapy—treat early, treat repeatedly, treat long.

substitute for arsphenamine, bearing in mind Kolle's observations on its spirochetostatic character rather than its spirillicidal value. It holds the infection at a standstill, perhaps, rather than aborts it. Nor is it yet the completely authorized successor of mercury, as some would have it, though it certainly shows promise in this direction. I am inclined to advocate its alternation with mercury in early syphilis without reduction in arsphenamine standards, and to urge its value in dealing with all resistant infections and its good effect as preparatory treatment in neurosyphilis and cardiovascular syphilis. It is very gratifying to witness the rapidity with which an infection that has withstood ordinary and even intensive measures, will be reduced to serologic negativity under bismuth. It is important to know, as Warren has shown, just how much metallic bismuth there is in the preparation one uses, and many results both pro and con will need revision in the light of such information. The tartrobismuthate, the hydroxide and the iodoquinat apparently lead in popularity at the present time.

Tryparsamide—No discussion of the modern treatment of syphilis could be complete without some mention of this remarkably interesting and important drug. The fear of eye complications from its use is being too widely influential, if anything, in limiting the application of what is in reasonably experienced hands, a veritable miracle-worker in the treatment of resistant neurosyphilis of the pre-paretic and parietic types. The drug is not directly spirillicidal to any significant degree, and hence has no place whatever in the treatment of early syphilis, even of the nervous system (primary and secondary stage). Its action seems to be that of a resistance builder and a tonic. The transformation that it affects in early paresis, with a minimum of cost and inconvenience to the patient, is a veritable god-send when contrasted with the discomforts and impracticality of malarial therapy under American conditions. On the other hand, in the institutional type of parietic, malarial inoculation is apparently superior. The eye complications of tryparsamide are of minor importance in patients with normal eyes, and in the hands of one experienced with the drug, can be practically reduced to zero by proper interpretation of symptoms and the taking of perimetric fields and visual acuity tests after each injection of the first course. Even if slight trouble appears, recovery is the rule, and the drug may then, after a lapse of a month, be resumed. Remember, in connection with tryparsamide, that the longer it is used the more favorable the impression it makes, and do not expect to have a sound opinion at the end of a course or two. In comparing it with malaria, likewise recall the intrinsic complications and a mortality approximating 10 per cent in

malarial therapy, which seems to make it a last rather than a first resort.

Fever Therapy—This aspect of treatment for syphilis has an interesting and, if one would wholly accept the Viennese view, a glowing future. It is a phase of the non-specific attack on the disease which is certain to be better understood in the next decade, as the era of chemotherapeutic enthusiasm undergoes the critical evaluation of time. The contest between specific and non-specific therapy will continue to be a hot one, and who can say when the chemists will produce the ideal antisyphilitic drug, free from all heavy metals and poisonous radicals, non-toxic, delicious as a relish when served with food, and of such potency that a single dose, by mouth, once taken and fixed in the tissues, insures absolute immunity from antemortem syphilis and postmortem disclosures for all time to come.

Prophylaxis, which is in a sense, anticipatory treatment, has perhaps a future worth watching. In the form of arsphenamine administered to the person who has been exposed to syphilis within a day or two after exposure, several observers have rendered excellent, some less critically commendatory reports. The syphilologist is in sympathy with every effort to abort the syphilitic infection before it has gained a definite foothold, but he still contends that if the beginning of treatment is advanced, its certainty shall not thereby be jeopardized. All arsphenamine prophylaxis must, therefore, be carried to the point of adequate treatment for an early infection if any considerable uncertainty as to cure exists. I should say that the deadline should for the time being be drawn at the third day after exposure. After this, arsphenamine as prophylaxis is untrustworthy. Such a procedure as the routine treatment of all genital lesions for syphilis without diagnosis seems to me as yet too advanced for support.

Of other aspects of prophylaxis, I would urge upon you a study of the value of prenatal treatment of the mother with syphilis, for the protection of the child. While one hears at times a dissenting voice, the consensus is that a great reduction of the incidence of syphilis in the child can be brought about by intelligent management of the infected mother. She should be treated for syphilis with moderate (not extreme) intensity, using both neoarsphenamine and bismuth, from the time her infection is discovered to within a month of delivery. Once delivered, her treatment should be continued to prevent relapse, and the child, whether with symptoms or without, should be watched over a period of months and years, not days and weeks, for signs of infection. The treatment of the heredosyphilitic child has been rendered much more practical for the average physician since the advent of sulpharsphenamine and the excellent intramuscular technic of Fordyce and Rosen.

intensive treatment in cases in which the syphilitic tumors are associated with extensive cirrhosis of the whole organ

Particularly difficult I believe are the occasional cases of syphilis and cancer existing in the liver at the same time. I have seen two such cases in which a clear cut differential diagnosis seemed impossible with existing criteria

Of great interest and seeking early solution is the relation of pre-existing syphilis to the general syndrome of hypertension. It would appear at least from present knowledge that a most paradoxical condition of affairs exists in this field. Syphilis, the great producer of arterial damage in both great and small vessels, attacking almost by predilection heart muscle and blood vessel wall, plays but a small role in the clinical pictures of general arteriosclerosis and hypertension

The apparent infrequency of severe early damage to the kidney in syphilis may account for the apparent insignificant role of syphilis in the etiology of general arteriosclerosis. Recent observation, however, would seem to show that syphilitic nephritis is not so uncommon as was previously believed and undoubtedly other factors than the freedom of the kidney must be brought to light to account for the failure of syphilitic sclerosis to produce hypertension. The soundness of this present day view, at least as borne out clinically, should be thoroughly investigated and if true its cause ascertained

An absorbing problem, not only as it bears upon the present problem, but in its relation to the general question of cancer etiology, is the relation of old syphilitic lesions to visceral carcinoma. The frequent association of syphilitic proctitis, that is ulcer, stenosis and stricture, to rapidly developing rectal cancer, cannot be regarded as accidental or coincident. That a causal relation between malignant epithelial degeneration and pre-existing syphilitic injury to the part exists is borne out by the greater frequency of the same chain of events in the mouth, tongue and pharynx

With the recognition during the past few years of a much greater incidence of gastric and intestinal syphilis, the possible relation between such lesions and gastric cancer would also seem to merit investigation. The solution of the problem of this relationship no doubt lies in the determination of whether the spirochaete itself may be a factor concerned with epithelial metaplasia or whether the association is merely one of disordered epithelium or prepared soil, readily becoming malignant in a break in normal epithelial continuity

A field still untouched and demanding early study is the determination of proper criteria for the clinical diagnosis of pulmonary syphilis. At present, such a diagnosis is of necessity, a post-mortem one. That the condition exists we know,

that its diagnosis is next to impossible according to present day knowledge lies in the fact that the picture of pulmonary syphilis, ordinarily speaking, is that of pulmonary disease. Laboratory criteria other than the autopsy offer little help, nor does the X-ray give us reliable data for a diagnosis of pulmonary syphilis. A pulmonary syphilitic lesion may present itself with nothing more distinctive than with the symptoms of massive consolidation, of diffuse fibroid change, of cavitation or bronchiectasis, simulating exactly pulmonary neoplasm, unresolved pneumonia, lung abscess, bronchiectasis or any phase of pulmonary tuberculosis

With the widespread incidence of tuberculosis and syphilis it is inevitable that the two frequently co-exist. To establish, however, trustworthy signs of syphilitic pulmonary disease, knowing that such can exist with or without tuberculosis, constitutes a real problem for the internist and from the patient's standpoint, it calls for early elucidation

Lastly, the relation of syphilis to diseases of the hematopoietic system and to the production of various types of anemia must be considered as a problem deserving of considerable study. Acute lysis of red blood cells is an occasional accompaniment of early syphilis. The degree of resulting anemia may be sufficiently extreme to simulate secondary anemia from other cause. Early and late syphilis of the spleen and bone marrow may produce pictures strikingly like those of the so-called primary anemias and of pernicious anemia. The occasional prompt and splendid recovery of such cases under anti-syphilitic regime, in the presence of a syphilitic background, constitutes more than presumptive evidence of their syphilitic nature. There remain, however, those cases in which syphilis is merely an accidental finding and still others in which the syphilitic background plays a secondary contributory, but not causal role. In neither of two last named groups does anti-syphilitic treatment result in benefit. Embodying as it does the use of heavy metals, which are themselves occasionally hemolytic, in the first group at least such treatment might be harmful. A comprehensive study of the syphilitic anemias with a view to establishing the role of spirochaetal infection as etiologic in some cases and casual in others merits early and intensive study

The solution of these problems will come I believe not with newer instruments of precision or with the establishment of new laboratory methods, but by the careful observation of many cases, coupled with the renaissance of the fine qualities of clear clinical observation which characterized the clinician of the day when diagnoses depended solely upon the exercise of a judicious mind, fortified by the impression of five highly trained senses

SYPHILIS FROM THE STANDPOINT OF THE INTERNIST

By UDO J WILE, A B, M D

Professor of Dermatology and Syphilology, University of Michigan Medical School.

THE establishment in 1905 of the infecting organism of syphilis and the elaboration shortly thereafter of the biologic diagnostic test have created what may be termed the newer pathology of syphilis. Resting upon a sound pathologic basis, Clinical Medicine has been enormously enriched in all its fields by the inclusion into the syphilitic picture of many clinical entities which previously had no sound foundation or established place in the natural history of the disease. In no other field of medicine has the periphery of our knowledge been extended further through the newer pathology than in the field of Internal Medicine. The definite demonstration of spirochaetes and syphilitic changes in aortitis, in most of the cases of aortic regurgitation, in many of myocardial disease, coronary disease, and aortic aneurism, have added these clinical pictures, which are but a few of many others, to the internist's broadened viewpoint of spirochaetal infection.

The whole problem of syphilis, however, from the standpoint of the internist, has not been simplified to the extent that one might first suppose, by the inclusion into it of these and other hitherto obscure conditions.

The occasional happy therapeutic result attendant upon antisyphilitic treatment in diseases of obscure etiology, in which syphilis is known to occur as a coincident infection, lead naturally to the inference that the syphilis may have more than an accidental role and that indeed it may in some cases at least be the causative factor. Of equal significance are those conditions in which infection, not necessarily specific, is the etiologic factor in profound parenchymatous disturbance, and in which syphilis can and does occasionally play the role of any other acute infectious process.

The necessary brevity of this essay does not permit of anything save mere mention of some of the newer problems which face the internist and clamor for solution, and which follow naturally in the wake of the broader concept of syphilis from the internist's standpoint.

In thyroid disease associated with syphilis we may be dealing with a mere coincidence of the two diseases in no way related, or syphilis may be the direct cause of a thyroiditis with or without the hyperthyroid state. Finally, the infection from syphilis may be the insult giving rise to hyperthyroidism, bearing the same relation to the latter that any other acute infection does. To properly evaluate an existing syphilis in the hyperthyroid state and in occasional cases of hypothyroidism requires the exercise of the greatest clinical judgment. The need for such careful

evaluation is self-evident. The cases of true syphilitic thyroiditis, such as gumma of the thyroid and in not a few of those cases in which hyperthyroidism appears with the syphilis as the important etiologic factor, are markedly benefited by antisyphilitic treatment, paralleling the prognosis of the best medical and surgical cures. In those cases on the contrary in which the two are mere coincidental conditions with no etiologic relationship, antisyphilitic treatment has no beneficial effect and may indeed be deleterious.

The need for the exercise of the same critical judgment exists when diabetes and syphilis co-exist. With the widespread incidence of both diabetes and syphilis, their occurrence together in the same patient should be regarded a priori, as a casual rather than a causal relationship. However, it should be recalled that syphilitic pancreatitis is invariably a glycosuric syndrome, whether the pathology is in the form of isolated gumma of the head, of the pancreas, or diffuse syphiloma and sclerosis of the entire gland. Under these conditions it occasionally becomes necessary to consider syphilis in the etiology of an evident diabetes. Here again brilliant therapeutic results may follow the recognition of the syphilitic syndrome and it is particularly in such cases where dietary regime and other forms of treatment would fail. The well-known imitative quality of spirochaetal infection is in no condition better illustrated than in cases where it leads to the production of an apparently typical diabetes mellitus.

To the pictures of hepatic syphilis and their relation to the cirrheses, much has been added to clear up the confused pathologic and clinical symptom complex of liver disease, but much remains to be cleared up. It may be accepted that syphilis can portray in the liver almost any pathologic and clinical syndrome from acute yellow atrophy to hypertrophic cirrhosis. Many of the clinical pictures described as entities are merely phases in point of time of the same process, and much confusion results from failure to so interpret them. A large liver with or without ascites and with hypertrophy of the spleen may so appear to one clinician and the same case appear at a later date to another as hepatic lobatum or cirrhosis with atrophy. In no organ apparently do large gummas appear and disappear so readily with or without symptoms as in the liver. The entire picture of extensive gummosis hepatitis can undergo kaleidoscopic changes in an incredibly short time. Within a few weeks the picture may vary from apparent enormous increases in size of the liver without ascites to ascites and a constricted liver, as the result of injudicious

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At the other extreme were those who took in the whole exhibit at an hour's glance, saw the obscure problems in diagnosis and treatment made clear, and gained the idea that after all syphilis is easy to understand and handle. These persons will go home and will diagnose every obscure condition as syphilis—until they see a demonstration on tuberculosis when all their diagnoses will be incipient consumption.

Between these two extremes a considerable number of thoughtful doctors hold a middle course and are neither indifferent nor over sanguine. They are awed by the numberless manifestations of the disease and will approach its diagnosis with faith and prayer—for it is a serious matter to fail to recognize syphilis when it exists, or to diagnose a case as syphilis when it is not.

The great value of the exhibit was that it revealed syphilis as an entity. A doctor is apt to be like any one of the blind men who described

an elephant as a tree, or a rope, or a snake, according to the part they happened to touch. Those doctors who have seen the manifestations of syphilis in only the skin and bones will gain a more true conception of the disease if they stand where they can see a complete picture of the disease at one time and place. These doctors will no longer think of syphilis as a dermatitis, or osteomyelitis, or hepatitis, or endarteritis but they will conceive it as a general disease of the whole body which reveals itself to the obtuse human senses in only one manifestation.

The exhibit was a great source of encouragement with its demonstration of diagnostic certainty and therapeutic hopefulness. No longer is syphilis a spectral seizure, mysterious, elusive, implacable, vindictive, impregnable. Its presence is plainly revealed by the microscope and the test tube, and it tamely yields to mercury and salvarsan. Few other diseases may be recognized more surely or treated more successfully.

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THE SYPHILIS EXHIBIT

The more one studies the Syphilis Exhibit of the Annual Meeting of the Medical Society of the State of New York, the greater seems the task accomplished by its promoters. No one could examine all the specimens that were shown or take the histories of all the patients, or read all the charts or see all the lantern slides and microscopic specimens, but every doctor who saw the exhibit got a vivid impression of the protean nature of the disease, and will recall the pos-

sibility of its existence in every obscure condition that he treats

The exhibit has a great inspirational value which is worthy of the effort put forth by the committee that had it in charge. A permanent record in this issue of the JOURNAL will carry its inspiration to those who did not see it, and will help the physicians who may wish to conduct a similar exhibit elsewhere.

GEORGE M FISHER

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their appearance. And, too, there is no question but that the suppression of prostitution has reduced the number of exposures and consequently the number of infections has diminished. With the decrease in new cases and the mass of ma-

terial which has been printed in the last few years, the physicians have had their suspicions aroused concerning the diagnosis of syphilis and more patients are coming under treatment earlier and are receiving better care.

REST OR EXERCISE

The therapeutic value of exercise has been popularly stressed to such an exaggerated extent that physicians often have difficulty in enforcing rest upon those who need it. Scientific health journals properly emphasize the healthfulness of exercise and fresh air, and the beauty papers stress the development of muscles and the figure. School journals point out the evils of improper posture, and lay out extensive series of exercises in attempts to strengthen the muscles and infuse vigor into the body.

The people generally are fed on propaganda for exercise until they apply it for every weakened condition. Is a child round-shouldered? Then enforce a system of exercises that will result in fatigue and lassitude.

Has a child weakened leg muscles following poliomyelitis? Then make the child walk, for "everybody knows that muscles get weak and flabby when you sit around all day."

Does a young man who has a slight afternoon rise of temperature give strict heed to the doctor's advice to take absolute rest? The chances are that he will take a fifteen-minute walk "to strengthen his muscles and to get the air."

Rest and relaxation have as much therapeutic value as exercise.

Those who deal with groups of poorly nourished children realize keenly the necessity of rest, and make provision for an hour in the early afternoon during which every child shall lie down in quiet and take a complete rest—and the recuperation of vigor is in marked contrast with the fatigue which follows periods of exercise.

There is a proper balance between rest and exercise, but physicians have difficulty in making their patients see it. Rest requires a certain amount of directed effort, and people generally do not know how to relax either muscularly or nervously. The subject of rest and relaxation is worthy of serious consideration by physicians.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

THIS JOURNAL, for June, 1906, contains a memorial of Dr. George Ryerson Fowler, delivered before the New York Academy of Medicine, May 3, 1906. Dr. Fowler was a noted Brooklyn surgeon and was one of the most active and best known workers in the State Medical Society. The JOURNAL for February, 1906, contains an account of his life, from which the following extracts are taken.

"Dr. Fowler was a man of indomitable energy. His capacity for work seemed almost without limit. Notwithstanding the vast amount of hospital and private work which he did he found time to give a large measure of his energy and thought to the general interests of the medical profession. He was always active in the affairs of his medical societies, and was always found taking a firm stand for what he believed to make for the best interests of his profession. He was one of the active movers in the amalgamation of the two great societies of the State of New York.

One of the last things to receive his attention was a movement to make accessible to all the members of the State Society the books of the library of the Medical Society of the County of Kings. He had hoped to see consummated a plan to give members of the State Society the privilege of having sent them, upon request, volumes from this library. With these objects for the general good in his mind, he went to Albany to attend the centennial meeting and reunion of the State Societies. He was stricken with appendicitis on his way to the capital city—the very disease from which he had rescued thousands—and, after an illness of ten days, in which every resource of science was exhausted, he gave up his life on February 6, 1906. A system which had been overtaxed by years of unremitting work, failed at the critical hour, and this splendid and much beloved man died because of the great labor he had done for others."



MEDICAL PROGRESS



History of Syphilis in the Far East—K Dohi, a Japanese, is publishing a serial article on this subject in the *Deutsche medizinische Wochenschrift*, from issues of which for April 9 and 16, 1926, the following is abstracted. The author, who has already published a monograph on this subject, is evidently a partisan of the modern origin of the disease, and like most writers, prefers to believe that his own people did not originate it. He is unable to find, either in Japanese or Chinese sources, any reference to a disease or epidemic which could suggest syphilis before 1500. That the latter could be masked as a form of leprosy is inconceivable, for that disease was too well known to the ancient Asiatic peoples. He makes no mention of certain Chinese writings much quoted by our historians, but has found three early writers who record what he regards as the disease in question. The first author mentions a period which coincides with our cycle 1488-1505, and toward the latter end of this period there broke out at first at Canton, later becoming pandemic, a malignant eruption. The date of the volume is 1545. The name of the disease is given as "pie chieh," which can mean syphilis. Another author who wrote in 1588 mentions the same disease as being widely diffused during the period 1506-1521. A third author who wrote at an earlier period than either—somewhere from 1520-1533—does not mention any epidemic but describes five cases of "yeung mui chang" which even today signifies syphilis. Three are probable and the other two doubtful cases. This writer knew of the venereal transmission and also that the disease is curable by mercury and a plant which corresponds to our sarsaparilla. Two contemporary Japanese authors describe an epidemic in 1512-3 that seems to have been general on the islands. One of the names given was "to kasa," which could mean syphilis. The first outbreak was in Kyoto. The author, without so stating, seems to imply that European sailors brought the disease from Portugal, but there is no evidence that any European sailors reached China or Japan at that period or anywhere near it. Portuguese reached Ceylon in 1505, Malacca 1511, Japan 1542, and China much later. The Canton epidemic must have broken out between 1500-1506, and spread to Japan by 1512. There seems to have been an outbreak of the disease over most of the maritime countries at about the same period, but the mode of diffusion is far from clear.

Nature of Metasyphilis—In an article in the *Klinsche Wochenschrift* of February 19, 1926, P. Doerr, rejecting the neurotropic views of the origin of paresis, endeavors to explain the occurrence of the latter, and of tabes by what might be called a mesodermotropic theory. We know, he says, that there are different degrees of virulence and also different degrees of tissue resistance, for we see local immunity due to allergy as well as the immunity conferred by treatment. As a general principle, all of the more highly organized tissues show much immunity, whether native or due to better circulatory, oxidative, and nutritive conditions. Conversely the connective tissues show such low resistance relatively that they have been termed the special prey of the spirochete, the tissues reacting typically to the micro-organism by the formation of a gumma. Otherwise stated, syphilis is a disease solely of the mesoderm, or at least attacks the other layers only because of the presence of connective tissue therein. Now in order to attack the highly organized nerve structures of the cortex cerebri and posterior spinal nerve roots, there must be certain changes in the pia mater brought about by the disease, as a consequence of which it loses its functional integrity and permits of permeation by the cerebrospinal fluid and interference with the nutritive conditions—oxidation, blood supply, etc.—of the nerve structures. With tissue resistance lowered the spirochete can now gain access to the nerve centers and proliferate, so that diseases develop which we call paresis and tabes. The author's views do not seem to satisfy all the possibilities, or at least he offers no explanation of the clinical distinction between ordinary lues and metasyphilis.

Familial Tabes—Guillain, Perisson, and Thevenard report one of those startling episodes which almost compel belief in the existence of neurotropic syphilis. The father, mother, and a four-year old boy all presented evidences of the tabes which was typical in the parents while the child showed only the Argyll-Robertson pupils and a positive Wassermann. Hereditary juvenile tabes is occasionally seen, but the syphilitic parents seldom present tabes themselves. Commenting on this case the authors see nothing irrational in the belief that the spirochete for one or another reason might develop a special organotropism which would result in its attacking the nervous

system only. This is not equivalent to saying that there is a special neurotropic strain which has evolved from the common race of spirochetes. The property might be casual and transitory. This sort of behavior is seen in various bacilli, notably the tubercle, typhoid, and dysentery organisms. The clinician, paying no heed to bacteriology, reached the same conclusion, even in the day of Fournier and Erb, and spoke of two separate viruses to explain syphilis and metasyphilis. There was no claim made for absolute separation, for it was conceded that the neurotropic virus was able to attack the skin under certain circumstances, although as a matter of fact this was of rare occurrence and but slight in extent. The converse was likewise seen on rare occasions, as when metasyphilitic disease followed well-marked cutaneous syphilis.—*Le Bulletin Médical*, February 17-20, 1926

Incipient General Paralysis—In the course of an inquiry recently made by Henry A. Bunker into the earliest signs of paresis, a report of which is published in the *American Journal of the Medical Sciences* for March, 1926 (CLXXI, 3) the writer found that the early symptoms, whether or not accompanied by physical signs or a positive blood Wassermann, were in almost every case disregarded or misinterpreted. In his study irritability held first rank as an early symptom, occurring as the earliest, or one of the earliest, in 42, or 57 per cent of the 74 cases. The character change whereby an individual is reduced in activity and spontaneity, loses some of his interests, tends to withdraw into himself, and is often described as having become "quiet," is likewise a common early symptom, for it occurred in 28, or 38 per cent of these cases. When this alteration in the personality of the patient was the first deviation from the normal to appear, it usually antedated the onset of frank mental symptoms by at least six months, and not infrequently by a year, a year and a half, and even longer. Loss of weight as an early manifestation ranked third numerically. It occurred—and very often early—in 22, or 30 per cent of this series. An increased tendency to sleep, somewhat more suggestive in itself than any of the foregoing symptoms, was an early manifestation in 15 cases, or 20 per cent. Speech defect, memory defect, and judgment defect have considerable diagnostic value in themselves, but they were found in this series among the early symptoms in only 11, 15, and 7 cases, respectively. Visual impairment, digestive disturbance, insomnia, fatigability, headaches, tremor, and rheumatoid pains were present as the earliest manifestations in a few cases, neurosyphilis must sometimes be considered in the differential diagnosis of these

very undistinctive symptoms. The presence of nervous and mental symptoms consistent with incipient general paralysis, if they are not otherwise clearly to be accounted for, calls at least for examination of the pupils and of the knee and ankle jerks and for a Wassermann test, and raises the question, even when the evidence from these sources is negative, of the necessity for lumbar puncture.

Rationale of the Action of Inoculation Malaria in Paresis—Donath and Heilig have made studies of the aminoacid content of the blood in artificial fever induced in both man and animals by injections of milk, trypsin, colloidal sulphur, nucleic acid, etc., and have found invariably that at the height of the fever these bodies show an increase (*Wiener klinische Wochenschrift*, March 25, 1926). Apparently we may infer that such increase is due to a general stimulation of metabolism as a result of the febrile process. Recently they tested the blood in metasyphilitic patients at the height of the fever induced by the malarial virus, but to their surprise there was no increase to be noted. It then occurred to them to test the cerebrospinal fluid and here they found the increase. Control injections of milk on the other hand produced no alteration and it was found in general that the ordinary pyretogenous substances showed no similarity of action here. This discrepancy showed that there could be more than one source for the increased aminoacid content, and the authors were forced to conclude that in paresis the increase in the spinal fluid was due to an intense focal reaction in the brain lesions of the disease. From this one may conclude that high fever alone is not sufficient to explain the cures of metasyphilis by malarial virus.

The Whittingham (W) Strain of Artificially Induced Malaria—After preliminary work with strains of quartan, malignant tertian, and simple tertian fevers in the treatment of general paralysis and tabes dorsalis, A. R. Grant and J. D. Silverston (*Journal of Tropical Medicine and Hygiene*, April 15, 1926, XXXIX, 8) concluded that the tertian was most useful for their purpose, and so the birth of the Whittingham (W) strain took place on September 8, 1922, when a general paralytic was inoculated with blood from a patient who had contracted tertian malaria in India. From this host a long chain of cases of general paralysis and tabes has been infected, using 2 c.c. of recently drawn venous blood, with the result that during nearly three and a half years the strain has been transmitted by direct subcutaneous inoculation through 60 generations, comprising over 150 cases. The incubation period calculated from the date of inoculation to the day of appearance of parasites in the peripheral blood stream, although varying occasionally between six and twenty days, was fairly

constant, averaging from ten to twelve days throughout the period. The commencement of the fever generally preceded the appearance of the parasites in the peripheral circulation by one to four days, though often the parasites and the fever coincided in the day of their appearance. The physical signs that accompany the recurring paroxysms of fever are apparently similar to those observed in mosquito malaria. Patients who are going to be improved by the treatment usually are so after five rigors, and not more than ten paroxysms seem to be justified. After a three-day course of treatment by the oral administration of hydrochloride of quinine—30 grains on each of three consecutive days—the fever quickly subsides and the parasites rapidly disappear from the blood. In some cases the fever and parasites show a tendency to disappear spontaneously. A fact of considerable interest and importance is that the prolonged sojourn of *P. vivax* in man, comprising 60 direct passages during three and a half years, has wrought no change in the pathogenicity or virulence, nor alteration in the therapeutic properties, of this organism. Again, the morphology of the parasite has not changed, differing in no way from that found in naturally infected cases. Incidentally the experience of these writers leads them to believe that malaria is not a therapeutic measure of value in nonsyphilitic psychoses.

Inoculation Malaria and Rupture of the Spleen—Bachmann, of the clinic of Professor Curschmann, states that while Wagner-Jauregg failed to see spontaneous rupture of the spleen in over 1,200 patients with metasymphilitis treated with malaria virus, cases are being reported and he has added a fifth to the series previously recorded by Alexander, Tromner, Baltzer, Herzig, and Weygandt. Thus another untoward accident from this plan of treatment has been added to a number already sufficiently formidable. In regard to the frequency of this complication in ordinary malarial patients, Davidson saw but three cases in 30,000 patients during an observation period of eight years. The accident may be overlooked at times for a diagnosis, beyond that of internal hemorrhage, is seldom made before laparotomy. It would therefore appear that the metasymphilitic patient is slightly predisposed to rupture or that inoculation malaria differs in this respect from the ordinary type. The author's patient was in excellent general condition although he had never received any antisymphilitic treatment during the eight years of his disease. The diagnosis on admission was cerebral lues with probable beginning paresis. After an observation period of 23 days to exclude the presence of febrile attacks he was placed on the malarial treatment. His first rise of temperature did not exceed 39° C (102° F), but a few hours after the second

intravenous injection he collapsed with fatal outcome, autopsy revealing rupture of the spleen without any history of a traumatic factor—*Muenchener medizinische Wochenschrift*, March 26, 1926.

Treatment of Multiple Sclerosis with Malaria Virus—Dreyfuss and Hanau, after reviewing the essays of treatment of this disease with certain vaccines and non-specific proteins which produce more or less rise of temperature, came to the conviction that in the use of pyretogenetic drugs the higher the temperature and the longer this can be maintained the better will be the result, which means that malarial virus is the remedy of choice. The authors have found this to be true in practice. They have now treated 12 patients who had the disease in the chronic progressive form without complete loss of the use of the limbs, the crippling, which was marked in all cases, being chiefly spastic in nature. The authors began the use of the virus in 1924 and the post-treatment period is necessarily brief—3 to 6 months only. Despite the smallness of the material and the short observation period the authors regard the results as striking, especially in two patients who now dispense with canes and are able to go up and down stairs. Of the original 12 patients treated 9 improved and 3 did not, and of the nine to benefit from treatment but one has shown a tendency to relapse, the remaining eight having held their gains well. After a course of malaria virus the patient returns to his former treatment, consisting of the use of some arsenical, including salvarsan, if desired. The authors do not advise the malaria treatment save in the chronic progressive case and naturally only after other measures have shown themselves inert—*Deutscher medizinische Wochenschrift*, March 5, 1926.

The Extended Use of the Whole Thickness Skin Graft—Experience has shown that the Wolfe graft, originally devised for plastic use in the repair of palpebral defects, is capable of steadily widening application. Two situations in which its use has been facilitated by the aid of new devices are described by Percival P. Cole (*The Practitioner*, April, 1926, cxvi, 4). One of these situations is in the soft parts of the face which are constantly subjected to slight movement, making difficult the maintenance of firm steady pressure. The tissue in and around the neighborhood of the lower lids is particularly prone to be affected by rodent ulcer. To meet the difficulties in excision of the ulcer, the author has devised an apparatus consisting of a broad metal forehead piece, which is lined with Stent's modeling compound, to secure a firm ac-

curately fitting bearing surface. A small piece of soft metal is cut to the shape and size of the incised area and bent to the contour of the part. When the graft has been sewn into place, the under surface of the metal plate is covered with soft Stent and gently pressed home over the area involved. Arms attached to the headpiece are so arranged that they fit snugly into a depression made on the upper surface of the little piece of metal. In this way light constant pressure is maintained with the least discomfort to the patient, and the results are practically and cosmetically reliable. By means of a perforated zinc splint, shaped for the particular case, Cole has been able to employ whole thickness skin grafts in cases of cicatricial contractions producing flexion deformities of the fingers. The zinc splint is filled with soft Stent, gently pressed over the graft and bandaged in position. The results have exceeded all anticipations and have enabled the restoration to good use of fingers recommended for amputation, because of extensive mutilations, septic infections, and burns.

Rope Grafts—After describing the Gillies method of employing the tube graft, Frank H. Lahey (*Boston Medical and Surgical Journal*, January 7, 1926, cxciv, 1) calls attention to a few factors which his experience has taught him go to bring about success or failure. It is necessary to make the two parallel incisions, which mark out the flap, sufficiently far apart so that the strip will be wide enough to permit of connecting it into a tube and yet not so to constrict it that there will be a definite blanching of the segment when the approximating sutures are tied. It is a distinct advantage to have a moderate amount of subcutaneous fat, so that when the tube is constructed its center is completely filled with adipose tissue and contains no dead space or canal, insuring thus no pocket for the accumulation of serum, and also walls of sufficient thickness to provide an adequate blood supply. Careful measurements should be made as to the distance between the point into which the graft is to be inserted and the point which is to serve as the base of the pedicle, in order to avoid tension which may shut off the circulation and result in necrosis and loss of the transplant. To test the vascularity of the graft when it is ready for transfer, a string is tied around the end to be transferred and, after stripping the tube until it is pale, a second ligature is tied around the base. At the end of a minute or two the ligature at the base is removed, and the degree of flushing and the rapidity with which it descends the graft is noted. If a good red color appears and rapidly runs down the tube, it may be transferred without fear of any lack of blood supply. If the tube is restored to its bed after being cut away from the transplanted flap, it must be split along its

line of suture, its edges undercut and the central cord of subcutaneous fat rimmed out. The edges of the wound into which the flap is to be returned must be sharply undercut to ensure good approximation.

Head Colds—A cold in the head ranks with seasickness as one of the most studied and least understood, in a practical therapeutic sense at least, of all human maladies. We have slowly awakened to the fact, and are even more slowly beginning to act upon the conviction, that colds are infectious and potentially very serious diseases, and any article on the subject written by one in authority is read with interest in the hope, not always realized, that it will shed new light in a very dark etiological and therapeutic corner. In a recent communication of some interest, published in the *Muenchener medizinische Wochenschrift* of April 20, 1926, Hans Much, a German pathologist, places colds in a group of infections communicated from pharynx to pharynx, which group has a number of members. Invasion of the nose he regards evidently as secondary. The factors which produce a common cold he holds to be the same as those behind most infections. There is an exciting organism but the mere fact that it can transmit an infection from person to person is not enough to explain epidemics and endemics. There is the constitution of the patient to consider—the relative susceptibility and immunity—in connection with the relative virulence or innocuousness of the germ. There is a third factor, the unknown principle which may either lower individual resistance or stimulate the activity of the exciter. Until we know more about this we must associate it with the weather, the changes of which somehow affect living creatures in general, giving rise to a kind of recurring periodicity. The popular name for this disease—a cold—suggests the power of the weather to lower individual resistance. The bacterial factor may at present be overvalued. Much thinks, in support of which he recounts an experience with epidemic cerebrospinal meningitis in which he was officially active. The outbreak was combated in the usual manner, by isolation of patients and examination and isolation of healthy carriers. Toward the end of the epidemic, just when the meningococcus should have been disappearing from the throats of exposed healthy subjects the number of the latter whose throat swabs were positive, was constantly increasing, yet no new cases developed. In other words, the cocci had completely lost their virulence. The author is very properly and justly opposed to testing virulence on guinea pigs, for he has never seen a true human infection which could be reproduced literally in an animal.



THE DAILY PRESS



THE PROBLEM OF THE FEEBLE MINDED

The *Herald-Tribune* of June third carries an editorial comment on the meeting of the American Association for the Study of the Feeble Minded recently held in Toronto. The newspaper says that the control of the feeble minded is the greatest public health problem in the world. It quotes Dr F E Williams, Medical Director of the National Committee for Mental Hygiene as saying that more than 75,000 new mental patients are now appearing each year at the hospitals and insane asylums. The editorial continues, "If the chief asset of a nation is its citizenry, these figures raise a disquieting suspicion that far too many of our population are going mad."

"It is unwise, however, to jump too hastily at this pessimistic conclusion. There is no denying the figures. The number of registered insane is really increasing. This is true both in the United States and in the world as a whole. But this may not mean an actual increase of insanity or any real deterioration of the average American mind. The increases may be due merely to better diagnosis. Fifty years ago an individual had to be rather violently insane before he was called so, before the restraints of the asylum were invoked. Every community had its half wits or three-quarter wits. These were tolerated, helped, written down in the census returns as normal. Asylums were dreaded. The subnormal child was kept at home, concealed by the family as a disgrace. The apparent increase in the numbers of idiots and insane is probably an increase of frankness rather than an increase in actual abnormality."

The editorial goes on to say, "Nevertheless, the existence of any feeble mindedness at all marks one of the failures of medical science. It is prob-

ably no more a necessary infliction of society than is smallpox. Smallpox has been conquered, mental defects may be. The trouble at present is that we know so little of the causes of these defects. There is evidence that mental weakness is frequently inherited. One of the speakers at Toronto will be Dr Charles B Davenport, of the department of eugenics of the Carnegie Institution, who will discuss this evidence and what to do about it. Somehow the percentage of mental defectives must be reduced. It is the job of scientists like Dr Davenport to show us how."

This is only half true. There is much more than "evidence" that mental weakness is "frequently" inherited. Medical science demonstrates that heredity is by far the principal cause of feeble mindedness.

The remedy is obvious—prevent propagation by the feeble minded. But at present this is almost entirely a social and not a medical problem. Medical men are willing to do their part in the sterilization of habitual criminals and the feeble minded and legislators are willing to legalize the performance of the necessary operations, and the patients themselves are willing and even anxious to have the operations done—but sentimentalists object with such vehemence that little or nothing is done.

Such compulsory measures are not permitted, education is the only weapon available. But young persons believe that beauty and attractiveness and perfection of the body indicate similar traits of the mind, and the moron flapper continues to catch the unsophisticated honor students.

After all it is reassuring that the stern law of nature is still operative in the elimination of the unfit and the survival of the fittest, and that the race is continually evolving upward in mentality.

THE PROBLEM OF ACCIDENTS

The popular conception of the word accident is that it means something that just happens and cannot be prevented, yet employers of labor consider them to be preventable. No longer is an ignorant workman compelled to take the chances of being disabled for life from causes over which no one is supposed to have control. The new conception is that all so-called accidents may be preventable—that is, they are due to causes which can be foreseen and can be controlled.

The *New York Sun* of June first contains a news item and an editorial on the report of the

United States Steel Corporation regarding the accidents in the plants. The popular belief naturally is that the steel mills with their ponderous machinery, heavy metal, the heat and dust, should be peculiarly likely to have numerous accidents that are peculiar to the industry, yet ninety per cent of the accidents were due to causes which are common to all industries and only ten per cent were due to the special hazards of the industry. The editorial says "Contrary to a somewhat general impression, most accidents in such industrial plants are not due to hazards peculiar to the

industry or to its machinery. Charles L. Close, manager of the corporation's Bureau of Safety, Sanitation and Welfare, has found that hot metal, flue dust and flame have been responsible for less than 5 per cent of the total and that only 4.9 per cent were due to machinery. Nearly half of the whole number of accidents have been due to hand labor where safety cannot be assured by mechanical devices or appliances."

The law recognizes that "accidents" are preventable and the Steel Corporation recognizes its justice by spending immense amounts of money to eliminate them, and the results are well worth while. The editorial says:

"A review of twenty years of organized effort to prevent accidents in the plants of the United States Steel Corporation discloses that 46,000 persons have been saved from death or serious injury and 322,000 others have been saved from less serious accidents which would, however, have disabled them. These totals are reached by calculating on a percentage basis, taking into consideration the high number of accidents reported annually before Judge Gary authorized the accident prevention movement and those which have happened each year since.

"The figures show a reduction of more than 60 per cent in serious accidents and of more than 80 per cent in less serious ones. Secretary Davis of the United States Department of Labor in a letter to Judge Gary observed that in a group of plants, composed largely of the Steel Corporation's subsidiaries, the accident frequency ratio has dropped from 60.3 for each million hours of exposure in 1913 to 10.2 for each million hours in 1924, a reduction of 83 per cent.

"Here remedial efforts must mainly take the form of education for the individual worker. This has not been possible without considerable expense. A report prepared by Mr. Close's bureau covering the last fourteen years shows that the corporation has spent \$158,000,000 in that period for safety, sanitation and welfare. Direct accident prevention accounts for only \$15,700,000 of the total, the rest going for pensions, relief, sanitation, playgrounds, schools, clubs, gardens, visiting nurses and the like. Arthur Williams, president of the American Museum of Safety, declares this the most astounding record of accomplishment in accident prevention and health promotion he has seen in the fifteen years of his association with the safety movement.

"Aside from all humanitarian consideration, Judge Gary has figured on a dollar and cents basis that such expenditures bring handsome returns. He estimates that in ten years the Steel Corporation paid \$9,763,063 in accident prevention work and that the money saving resulting therefrom was \$14,609,920.

"With such evidence on record it is indeed true, as Mr. Williams says, that there is no longer excuse for the failure of any industry to give the utmost attention to organized accident prevention. It is no longer a mere matter of shouting 'Safety First!' but a question now of impressing on the minds of everybody that 'Safety Pays'."

The prevention of accidents is largely a medical problem, for inattention due to fatigue is one of their greatest causes. The psychological effect of lighting, ventilation, eye strain, and other working conditions also come under the control of expert medical men.

The reduction in the number of accidents and the improved morale and health of workmen generally are great items to the credit of the medical profession which are recognized by the daily press.

Yet the prevention of accidents is not entirely or even principally a medical problem. Why do people get impatient and take chances? That is a question for psychologists and business people to answer.

Why do owners disregard the plain warnings of ramshackle buildings that fall down, and of worn machinery that breaks down and injures workmen? The solution of that problem is largely the work of preachers and Sunday School teachers.

Why do people take chances at street crossings and show an utter disregard of rules and regulations? The work of the school teachers in training the people to obey is a great factor in preventing accidents.

Even fatigue, one of the greatest of causes of accidents cannot be prevented by medical means. Late hours at dances and revels will be followed by fatigue the next day in spite of the best efforts of sanitarians.

The managers of mills and factories and transportation lines may provide means of safety, but it almost seems that the people go out of their way to invite accidents.



DEATHS



HOPE, GEORGE BEVAN, New York City, Bellevue Medical College, 1875, Member State Society, Alumni Association Bellevue Hospital, Surgeon Metropolitan Throat Hospital, Consulting Physician Harlem Eye, Ear and Throat Infirmary Died April 18, 1926

HOPKINS, HENRY REED, Buffalo, University of Buffalo, 1867, Member State Society, Buffalo Academy of Medicine, Consulting Physician General Hospital Died March 6, 1926

HOWK, HORACE JOHN, Mount McGregor, University of Michigan, 1907, Fellow American Medical Association, Fellow American College of Physicians, National Tuberculosis Association, American Public Health Association, Member State Society Died April 8, 1926

JOYCE, THOMAS URQUHART, Brooklyn, Long Island College Hospital, 1881, Member State Society Died April 1, 1926

KAHN, MAX, New York City, Cornell Medical College, 1910, Fellow American Medical Association, New York Academy of Medicine, Member State Society, Visiting Physician and Director of Laboratories Beth Israel Hospital, Chief, Department of Metabolism Israel Zion Hospital Died April 9, 1926

KANDT, HARTWIG, Brooklyn, Long Island College Hospital, 1906, Fellow American Medical Association, Fellow American College of Physicians, National Tuberculosis Association, Brooklyn Pathological Society, Member State Society, Attending Physician Methodist Episcopal Hospital, Consulting Physician Wyckoff Heights Hospital Died March 25, 1926

KATZENBACH, WILLIAM HENRY, New York City, Bellevue Medical College, 1871, Fellow American Medical Association, New York Academy of Medicine, Alumni Association Bellevue Hospital, Member State Society, Attending Physician Polyclinic Hospital Died March 19, 1926

KENE, JOSEPH ALPHONSE, Brooklyn, New York University, 1878, Fellow American Medical Association, Brooklyn Neurological Society, Member State Society, Attending Physician St. Peter's Hospital, Consulting Physician St. Anthony's Hospital Died March 11, 1926

LINELIA, HARLAN EDWARD, Brooklyn, Baltimore Medical College, 1907, Member State Society Died March 9, 1926

MCCLELLAND, LEFFERTS AUGUSTUS, Brooklyn, Long Island College Hospital, 1885, Fellow American Medical Association, Fellow American College of Surgeons, American Laryngological, Rhinological and Otological Society, American Academy of Ophthalmology and Oto-Laryngology, Brooklyn Pathological Society, Member State Society, Otologist and Laryngologist Broad Street, Community, Mercy, Hempstead and South Side, Bay Shore, Hospitals, Otologist Coney Island, Rockaway Beach and Kingston Avenue Hospitals Died April 12, 1926

MCGUIRE, CONSTANTINE F, New York City, Bellevue Medical College, 1882, Member State Society Died April 15, 1926

MERRILL, CYRUS STRONG, Albany, College of Physicians and Surgeons of New York, 1871, Fellow American Ophthalmological Society, American Otological Society, Member State Society, Ophthalmological and Otological Surgeon Albany and Child's Hospitals Died March 17, 1926

MOFFAT, HENRY, Yonkers, College of Physicians and Surgeons of New York, 1881, Fellow American Medical Association, Fellow American College of Surgeons, New York Academy of Medicine, Member State Society, Alumni Association St. Luke's Hospital, Consulting Surgeon St. Joseph's, Tarrytown and Ossining Hospitals Died March 25, 1926

MORGAN, THOMAS HENRY, New York City, Trinity, Toronto, 1897, Fellow American Medical Association, Fellow American College of Surgeons, Member State Society, Surgeon St. Elizabeth's Hospital, Assistant Gynecologist Polyclinic Hospital Died April 9, 1926

POLON, ALBERT, New York City, Cornell Medical College, 1910, Fellow American Medical Association, American Psychoanalytic Association, New York Psychoanalytic Association, Member State Society, Attending Neurologist Vanderbilt Clinic Died March 15, 1926

RICHE, PAUL, New York City, Long Island College Hospital, 1907, Fellow American Medical Association, Member State Society Died March 23, 1926

ROOF, STEPHEN WHITE, New York City, University and Bellevue Medical College, 1906, Fellow American Medical Association, Member State Society, Junior Surgeon Manhattan Eye, Ear and Throat Hospital, Consulting Otologist and Laryngologist Nyack Hospital Died March 13, 1926

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"Aside from all humanitarian consideration, Judge Gary has figured on a dollar and cents basis that such expenditures bring handsome returns. He estimates that in ten years the Steel Corporation paid \$9,763,063 in accident prevention work and that the money saving resulting therefrom was \$14,609,920.

"With such evidence on record it is indeed true, as Mr. Williams says, that there is no longer excuse for the failure of any industry to give the utmost attention to organized accident prevention. It is no longer a mere matter of shouting 'Safety First!' but a question now of impressing on the minds of everybody that 'Safety Pays!'"

The prevention of accidents is largely a medical problem, for inattention due to fatigue is one of their greatest causes. The psychological effect of lighting, ventilation, eye strain, and other working conditions also come under the control of expert medical men.

The reduction in the number of accidents and the improved morale and health of workmen generally are great items to the credit of the medical profession which are recognized by the daily press.

Yet the prevention of accidents is not entirely or even principally a medical problem. Why do people get impatient and take chances? That is a question for psychologists and business people to answer.

Why do owners disregard the plain warnings of ramshackle buildings that fall down, and of worn machinery that breaks down and injures workmen? The solution of that problem is largely the work of preachers and Sunday School teachers.

Why do people take chances at street crossings and show an utter disregard of rules and regulations? The work of the school teachers in training the people to obey is a great factor in preventing accidents.

Even fatigue, one of the greatest of causes of accidents cannot be prevented by medical means. Late hours at dances and revels will be followed by fatigue the next day in spite of the best efforts of sanitarians.

The managers of mills and factories and transportation lines may provide means of safety, but it almost seems that the people go out of their way to invite accidents.

into the study of the science of neurology, we are given an account of the man himself, his personality, character and a brief outline of his career. Dr Sir John Hutchinson has contributed "Recollections of a Lifelong Friendship" to this volume and Dr Mercier has also donated his "Recollections", to both of these gentlemen do we owe the pleasure of becoming acquainted with a remarkable man, blessed with a sense of humor, whose method in every task was thoroughness and getting to the very root of any possible problem. The chapters by Dr Jackson are priceless in the study of neurology. Many valuable discoveries in this science are the result of the tireless and profound efforts in the lifework of a real genius in his particular world.

F. C. E.

PLASTIC SURGERY OF THE NOSE. By J. EASTMAN SHEEHAN, M.D. F.A.C.S., Associate Surgeon and Lecturer International Clinic of Otorhinolaryngology and Facio-Maxillary Surgery Paris, Plastic Surgeon and Chief of Nose and Throat Clinic, New York Post-Graduate Medical School and Hospital, foreword by JOHN F. ERDMANN, M.D., F.A.C.S., Professor of Surgery, New York Post-Graduate Medical School and Hospital. Paul B. Hoeber, Inc., New York, 1925. Price, \$10.00.

This volume covers the plastic operations on the nose in a very concise manner. The book is particularly valuable because of its numerous and well planned illustrations and the explicit manner in which the author outlines the various operations for deformities of the nose.

PEDRO PLATOU

ENERGETIQUE CLINIQUE PHYSIOPATHOLOGIE—THERAPEUTIQUE. A. MARTINET. *Le Sympathique, Le Vague, Les Reflexes, De La Vie Organo-Vegetative.* Publie Par Les Sons Du Dr Martingay. Masson et C. Editeurs, Libraires De L'Academie De Medecine, 120 Boulevard Saint-Germain, Paris, 1925.

The author has given us a very comprehensive treatise on the anatomy physiology and pathological physiology of the autonomic nervous system. The discussions of Raynaud's syndrome and of angina pectoris are interesting from this point of view. The question of sympathectomy is well discussed in these two conditions.

Basedow's disease is analysed from the point of view of the vegetative nervous system and found to be made up of phenomena attributed to disturbances largely of the sympathetic system but also of the vagus and endocrine systems as well, in other words an autonomic and endocrine imbalance.

Vagotonia is thoroughly discussed and under it a syndrome called "hypophyse" is described. The distinguishing feature of this is a low differential blood pressure in relation to a high viscosity of the blood. Clinically, the picture seems to be—small pulse tendency to cyanosis, cold extremities, congestion of the liver, hemorrhoids, varicose veins, oliguria and muscular dystrophy.

There are good chapters on the pharmacology of the vegetative nervous system and the treatment of its disorders.

Throughout the work however, there is a tendency to divide disease entities up into multitudes of special syndromes whose descriptions are meticulous but confusing to the American reader.

The last part of the volume is devoted to a highly theoretical and technical discussion of general organic energy in the human body and its adaptation to changes in environment. An attempt is made to understand the integral energy of life.

EDWIN P. MAYNARD JR.

HEXOSAMINES AND MUCOPROTEINS. By P. A. LEVENE. The Rockefeller Institute for Medical Research, New York. Longmans, Green and Co., 1925. Price, \$3.75.

The author of this monograph has gathered under one cover the observations of his own explorations and of others on a difficult frontier of bio-chemistry.

The subject of hexosamines is introduced by a short chapter on the simple sugars with especial emphasis on their isomeric modifications. The theoretical discussion of the hexosamines and their derivatives is followed by practical methods for their preparation. A similar scheme is used in the treatment of the chondroitin and mucic acid sulphuric acids, also for the mucoproteins and glucosidoproteins. An historical synopsis showing the difficulties encountered by earlier workers on these compounds is an interesting addition. A bibliography is also included.

It is essentially a book for the chemist who concerns himself with searching out the structure of these complex substances.

A. G.

DEVELOPMENT OF OUR KNOWLEDGE OF TUBERCULOSIS. By LAWRENCE F. FLICK, M.D., LL.D., Chairman of the Committee on International Congress on Tuberculosis in Washington, 1908, Ex-President International Anti-tuberculosis Association. 739 Pine Street, Phila., Pa., 1925. Price, \$7.50.

In this remarkable work Dr. Flick has written a complete history of the development of our knowledge of tuberculosis, from the very earliest ages—even pre-Grecian—down through all the centuries to and including the work of our own Theobald Smith on the bovine bacillus. In performing this arduous task the author has spared no details and yet has managed to achieve a most readable treatise, making all who are interested in so vast and so vital a subject very much his debtors. It is a reference work of such value that no well informed medical mind can afford to be without it. We congratulate the author on the success of his labors which must have been stupendous and especially do we congratulate the profession in now having at hand so invaluable a mine of information.

FOSTER MURRAY

PRACTICAL PHYSIOLOGICAL CHEMISTRY. By SYDNEY W. COLE. M.A. Sixth Edition. Octavo of 405 pages. Baltimore: Williams and Wilkins Company, 1920. Cloth, \$4.00.

This volume should prove a useful laboratory manual for students of physiological chemistry. In addition to definitely worded directions for the preparation of various bio-chemical substances the book contains sufficient chemical information of a general character to make it of value as a text book. Profuse illustrations and logical arrangement of subject matter are conspicuous features of this (sixth) edition. It seems strange to find no mention of insulin in a book of this character but the volume was published some years before Banting's discovery.

FRANK E. MALLON

POST-MORTEM APPEARANCES. By JOAN M. ROSS, M.B., B.S. M.R.C.S., L.R.C.P. 12mo of 216 pages. New York, Oxford University Press, 1925. Cloth, \$2.50 (Oxford Medical Publications).

This little book of about two hundred pages presents in a concise and brief manner the anatomical findings as shown at death from various poisons and the common diseases. Each disease is described separately first mentioning the external appearance of the body at death, then the internal appearance. In describing the latter, the different systems such as the circulatory, respiratory, digestive, renal, nervous, and skeletal systems are mentioned in so far as they contribute to the cause of death, or are a part of the particular disease.

The book is of value in that it describes the chief lesions in a condensed form.

E. H. NIDISH



BOOK REVIEWS



THE INTERNAL SECRETIONS OF THE SEX GLANDS The Problem of the "Puberty Gland" By ALEXANDER LIPSCHÜTZ, M.D. With a Preface by F. H. A. MARSHALL, F.R.S. Octavo of 513 pages, with 142 illustrations. Baltimore, Williams and Wilkins Company, 1924. Cloth, \$6.00.

Dr Lipschütz has written what will be considered a classic on the subject for a good many years to come. He presents the present-day knowledge of the sex glands from every view point that has been studied and discusses each problem in detail.

He restricts the term of endocrine gland to those glands which as far as we know, have no other function than that of the secretion of specific substances which enter into the blood and which influence the other organs in a specific manner, i.e., organs secreting chemically specific hormones.

According to him, there can be no development of sex characters without all the other organs of internal secretion participating, all of these glands are influenced by the former. He tends towards the idea that while the generative cells are not concerned directly with the production of a hormone, still the process of spermatogenesis is connected with the transformation of the interstitial cells into an active endocrine apparatus.

He does not think that the seminal vesicles, prostate gland or the genital passages are concerned with the elaboration of a hormone although it is likely that the secretion of these parts are very important.

There are very interesting chapters discussing the isolation of the sex hormone, hermaphroditism, eunuchoidism, sexual precocity, rejuvenation and sex determination.

This is one of the most valuable books written on the internal secretions of the sex glands.

M. B. GORDON

MIDDLE AGE AND OLD AGE. By LEONARD WILLIAMS, M.D. Octavo of 296 pages. London, Humphrey Milford, New York, Oxford University Press, 1925. Cloth, \$3.25 (Oxford Medical Publications).

This book contains the author's opinions upon the mode of life after one has passed his youth. Essentially the book is advisory and the methods of saving one's energy in the processes of living are described. Warning symptoms from the various systems of the body are mentioned and commented upon. As a source of new information, the book is a disappointment. Much ground has been covered and the author has given much of himself and his experience in completing the work. As an adjunct to the treatment of diseases of middle life and old age, it may be helpful to the reader.

HENRY M. MOSES

AIDS TO SURGICAL DIAGNOSIS By CECIL P. G. WAKELEY, F.R.C.S., Assistant Surgeon, King's College Hospital. William Wood & Co., New York, 1925. Price, \$1.50.

This is a very short and concise volume which contains a few of the more essential points relative to the diagnosis and differential diagnosis of the more common surgical conditions. The data is very well assimilated and it should be a very useful volume to a busy practitioner of surgery. Mr Wakeley makes his own criticism in the title and preface of the book.

A few of the more difficult surgical diagnoses of comparatively rare conditions should be substituted for some of those mentioned in the book. As for instance,

nothing is said relative to the differential diagnosis of torsion of the spermatic cord, but space is allotted to a comparatively rare condition as a tubulo-dermoid cyst of the floor of the mouth.

HERBERT I. WIKLE

A TEXT-BOOK OF MEDICAL DIAGNOSIS By JAMES M. ANDERS, M.D., Ph.D., LL.D., and L. NAPOLEON BOSTON, A.M., M.D. Third Edition, entirely reset. Octavo of 1,422 pages, with 555 illustrations. Philadelphia and London, W. B. Saunders Company, 1925. Cloth, \$12.00.

This third edition, with its 1,366 pages of text and splendid index of 56 pages, will prove a highly valuable book to the general practitioner. Its numerous illustrations, excellent discussion of methods of examination and special diagnostic technique, splendid table of differential diagnosis, comprehensiveness, and simple, terse style make it a book to be highly recommended.

M. A. R.

CLINICAL THERAPEUTICS By ALFRED MARTINET, M.D., Paris, France. Authorized English Translation from the Second Revised and Enlarged Edition. By LOUIS T. DEM SAJOURS, M.D., Philadelphia. Complete in two royal octavo volumes. Vol. I—Therapeutic Agents and Procedures. Vol. II—Treatment of Symptoms and Diseases. F. A. Davis Company, Publishers, Philadelphia, 1925. Price, \$16.00 net.

This work is a complement to an earlier one entitled "Clinical Diagnosis," of which four French and two American editions have already appeared.

There are two volumes with the subject matter divided as follows: Volume I, Part I—Therapeutic Agents, drug and dietetic therapy, physiotherapeutic and psychotherapeutic agencies are very completely described. Part II—Therapeutic procedures describes technical procedures from simple cupping to pericardial puncture and neurolytic injections. Volumes II, Part III is entitled "Treatment of Symptoms" and contains rather comprehensive symptomatic treatment for practically any symptom, with, in many instances, a tabular synopsis of the treatment of individual symptoms, by physical and pharmacologic measures. Part IV deals with the treatment of diseases. In this section is presented a very valuable account of up to date clinical therapeutics. Wherever possible the treatment is based on the etiologic, physiopathologic, anatomic and symptomatic diagnoses.

Any further detailed description of this work is impractical here, containing as it does no high lights but a wealth of therapeutic information. Symptomatic treatment is not stressed but is considered in its relation to the disease entity.

It should be of great value for reference.

JOSEPH G. TERRENCE

NEUROLOGICAL FRAGMENTS By J. HUGHLINGS JACKSON, M.D., F.R.S., F.R.C.P. With Biographical Memoir by James Taylor, M.D., F.R.C.P., and including the "Recollections" of the late Sir Jonathan Hutchinson and the late Dr. Charles Mercier. Octavo of 277 pages. London, Humphrey Milford, New York, Oxford University Press, 1925. Cloth, \$3.75 (Oxford Medical Publications).

In addition to a compilation of lectures, remarks and interesting cases of nervous diseases by Dr. Jackson, the neurologist, which proves to what extent he entered

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2 The subject of the meeting was the work of the Health Department of Cattaraugus County—the only County Department of Health in New York State.

While the meeting was conducted by the State Charities Aid Association, the officials of the Departments of Health of the State and County, and the representatives of the Medical Society of the State of New York also took an active part in the proceedings

The County Department of Health The Department of Health of Cattaraugus County was organized on January 1, 1923, under the provisions of the Public Health Law, Chapter 636 of the laws of 1923 and Chapter 499 of the laws of 1926, which added Section 20-b. This section permits the Board of Supervisors of any county to establish a general health district of any part or all of a county except its cities, and may include the cities that wish to enter it. The district of Cattaraugus County takes in the entire county including the cities

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BOOKS RECEIVED



Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

MEDICINE MONOGRAPHS—Volume 1 THE THERAPEUTIC USE OF DIGITALIS By G CANDY ROBINSON Octavo of 137 pages Baltimore, Williams and Wilkins Company, 1923 Cloth, \$2 50 **Volume 2 CYANOSIS** By CHRISTEN LUNDSGAARD and DONALD D VAN SLYKE Octavo of 80 pages, with illustrations Baltimore, Williams and Wilkins Company, 1923 Cloth, \$2 00 **Volume 3 EDEMA** By LEO LOEB Octavo of 178 pages Baltimore, Williams and Wilkins Company, 1923 Cloth, \$3 00 **Volume 5 DYSPNOEA** By JAMES HOWARD MEANS Octavo of 108 pages Baltimore, Williams and Wilkins Company, 1924 Cloth, \$2 25

THE ASPERGILLI By CHARLES THOM and MARGARET B CHURCH Photomicrographs by G L KEENAN Octavo of 272 pages Baltimore, Williams and Wilkins Company, 1926 Cloth, \$5 00

ANESTHESIA By JAMES TAYLOR GWATHMEY, M.D With Collaborators on Special Subjects Second revised edition Octavo of 799 pages, with illustrations New York and London, The Macmillan Company, 1925 Cloth, \$7 50

A MANUAL OF HYGIENE AND SANITATION By SENECA EGBERT, A.M, M.D, Dr P H. Eighth edition, enlarged and thoroughly revised Octavo of 616 pages, with illustrations Philadelphia and New York, Lea and Febiger, 1926 Cloth, \$4 00

SURGICAL CLINICS OF NORTH AMERICA Volume 6, Number 1, February, 1926 (Philadelphia Number) Published every other month by the W B Saunders Company, Philadelphia and London. Per Clinic Year (6 issues) Cloth, \$16 00, Paper, \$12 00

THE BACTERIOPHAGE AND ITS BEHAVIOR By F d'HERELLE, M.D Translated by GEORGE H SMITH, Ph.D Octavo of 629 pages Baltimore, Williams and Wilkins Company, 1926 Cloth, \$8 00

AN INTRODUCTION TO THE STUDY OF X-RAYS AND RADIUM By HECTOR A. COLWELL, M.B (Lond), DPH (Oxf) and CECIL P G WAKELEY, F.R.C.S (Eng), F.R.S (Edin) Octavo of 203 pages with illustrations New York, Oxford University Press, 1926 Cloth, \$3 35 (Oxford Medical Publications)

THE DIAGNOSIS TREATMENT AND END RESULTS OF TUBERCULOSIS DISEASE OF THE HIP JOINT By GEORGE PERKINS, M.Ch Oxon, F.R.C.S, Eng Octavo of 118 pages, with illustrations New York, Oxford University Press, 1926 Cloth, \$1 75 (Oxford Medical Publications)

NEURITIS AND NEURALGIA By WILFRED HARRIS M.D, Cantab, F.R.C.P, Lond Octavo of 418 pages with illustrations New York, Oxford University Press, 1926 Cloth, \$4 00 (Oxford Medical Publications)

THE PRIVATE PRACTITIONER AS PIONEER IN PREVENTIVE MEDICINE Being the Annual Oration of the Hunterian Society 1926 By SIR GEORGE NEWMAN K.C.B, M.D, D.C.L. Octavo of 47 pages New York, Oxford University Press, 1926 Paper, \$ 30

AN INTRODUCTION TO SURGERY By RUTHERFORD MORISON, M.D, and CHARLES F M SAINT, M.D Second Edition Octavo of 347 pages, with illustrations New York William Wood and Company, 1925 Cloth, \$4 50

PUERPERAL SEPTICAEMIA Its Causations, Symptoms, Prevention and Treatment. Being the Substance of a Thesis Submitted to the Royal Society of Medicine in June, 1924, and awarded the Nicholls Prize. By GEORGE GEDDES, M.D, CM (Aber) Octavo of 200 pages New York, William Wood and Company, 1925 Cloth, \$4 00

MANUAL OF EMERGENCIES MEDICAL SURGICAL AND OBSTETRIC Their Pathology, Diagnosis and Treatment. By J SNOWMAN, M.D, M.R.C.P, Lond. Second Edition 12 mo of 361 pages New York, William Wood and Company, 1926 Cloth, \$4 00

CAESAREAN SECTION With a Table of 120 Cases. By HERBERT R. SPENCER M.D B.S, F.R.C.P Octavo of 71 pages New York, William Wood and Company, 1925 Cloth, \$2 75

MODERN METHODS OF AMPUTATION By THOMAS G ORR, A.B, M.D, F.A.C.S Octavo of 117 pages, with 125 illustrations St. Louis, C. V Mosby Company, 1926 Cloth, \$3 50

HANDBOOK OF DISEASES OF THE RECTUM By LOUIS J HIRSCHMAN, M.D, F.A.C.S Fourth Edition, revised and rewritten Octavo of 403 pages, with illustrations St. Louis, C. V Mosby Company, 1926 Cloth, \$6.50

DISEASES OF THE NEW-BORN A Monographic Handbook. By JOHN A FOOTE, M.D Octavo of 231 pages with illustrations Philadelphia and London, J B Lippincott Company 1926 Cloth, \$5 00

NERVOUS AND MENTAL DISORDERS FROM BIRTH THROUGH ADOLESCENCE By B SACHS, M.D, and LOUIS HAUSMAN, M.D Octavo of 861 pages, with illustrations New York, Paul B Hoeber, Inc., 1926 Cloth, \$10 00

THERAPEUTICS MATERIA MEDICA AND PHARMACY The Special Therapeutics of Diseases and Symptoms, the Physiological and Therapeutical Actions of Drugs the Modern Materia Medica Official and Practical Pharmacy, Prescription Writing, and Antidotal and Antagonistic Treatment of Poisoning By SAMUEL O L POTTER, A.M, M.D, M.R.C.P, Lond. Fourteenth Edition, revised by R. J E. SCOTT, B.C.L, M.D Octavo of 672 pages Philadelphia, P Blakiston's Son and Company, 1926 Cloth, \$8 50

THE ENDOCRINE ORGANS An Introduction to the Study of Internal Secretion By SIR E SHAPEY-SCHAFER, LL.D, D.Sc, M.D, F.R.S Second Edition Part 2. The Pituitary, The Pineal, The Alimentary Canal, The Pancreas, and the Sex Glands Octavo of 418 pages, with illustrations New York, Longmans, Green and Company, 1926 Cloth, \$7 00

MODERN MEDICINE Its Theory and Practice in Original Contributions by American and Foreign Authors Edited by SIR WILLIAM OSLER Bart, M.D F.R.S Third edition, thoroughly revised Re-edited by THOMAS MCCRAE, M.D Assisted by ELMER H FUNK M.D Volume III Diseases of Metabolism—Diseases of the Digestive System Octavo of 1052 pages, with illustrations Philadelphia and New York Lea and Febiger, 1926 Cloth, \$9 00

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The promoters of the County work believed that the best kinds of public health work that is done in cities could be done in rural communities, if it were organized on a county-wide plan. The work was frankly a *demonstration*, and its promoters had full faith in its success. Well-known experts in all lines of public health work were consulted, and they were largely responsible for the plans which were adopted. There was a possible source of misunderstanding in the development of plans from outside the County, but the advantages of the plans were that proven methods could be put into operation at once, with the expectation that they would be modified according to conditions as they arise. As a matter of fact, the plans and methods of work have been somewhat modified during the three and a half years of the demonstration.

Division of Work The work of the local health officers, 23 in number, is continued as in other counties. However, they have been encouraged, and their duties have been modified, coordinated and defined, and their field of usefulness increased by the cooperation and assistance of the County Department of Health.

The work of the County Department of Health is conducted under seven bureaus as follows:

- 1 Health Education
- 2 Public Health Nursing
- 3 Tuberculosis
- 4 Communicable Diseases
- 5 Maternity, Infancy, and Child Hygiene
- 6 Laboratories
- 7 Sanitation

There was also appointed a director of school hygiene who supervised and directed the work of examining the school children and correcting their defects. Although this work is fully coordinated with that of the County Health Department, and is administered by it, yet it is not officially a part of its activities.

The personnel at the outset was small and consisted of the following:

- 1 A County Health Officer
- 2 A Public Health Nurse
- 3 A Clerk

The present personnel is as follows:

- 4 Physicians
- 12 Nurses
- 1 Statistician
- 3 Technicians in the Laboratory
- 7 Clerks

The city of Olean continues its own health department with a personnel as follows:

- 1 Doctor
- 1 Clerk
- 1 Inspector
- 2 Nurses

The whole is unified by a County Board of Health of seven members appointed by the

Board of Supervisors, and an advisory committee of five members of the Board of Supervisors.

Cattaraugus County is approximately square, and has an area of 1,343 square miles. It had a population of 71,323 in 1920, distributed as follows:

In cities (Olean and Salamanca)	29,782
In 16 incorporated villages	15,374
In strictly rural sections	26,167

The administrative headquarters of the County Health Department and the County Laboratory are located in the City of Olean, but in order to reach the rural sections, eight district health stations have been established, in each of which there are two or three nurses, and rooms for holding clinics and making examinations and keeping records.

One of the features of the work of the County Health Demonstration is its records. If a demonstration is to be of value, its activities must be recorded. The great weakness of the public health work done by physicians is the failure of doctors to educate the people in the nature of diseases and in the measures to prevent sickness. The great weakness of rural departments of health is failure of health officers to give publicity to the good work which they do. Every health officer performs many important items of work for which he gets no credit because he does not tell the people about his activities. The workers in the Cattaraugus County Department of Health have kept careful records of every item of their activities. They have tabulated the results, constructed charts, and made great efforts to inform the people what they have done. In no other way could they have made their demonstration of value.

The Meeting—The program of the annual meeting of the State and local committees on Tuberculosis and Public Health was unique and efficient. It consisted of an observation tour of the headquarters and district stations. In each place a meeting was held at which the leaders gave accounts of their work, and specialists from outside the county spoke. Among the speakers were Dr. George M. Fisher, President of the Medical Society of the State of New York, Sir Arthur Newsholme, formerly Chief Medical Health Officer of England, and Mr. Homer Folks, Secretary of the State Charities Aid Association. The addresses were reported by a stenographer, and are printed in the pages following this article. A person reading them will obtain information regarding every phase of the demonstration.

The Future of the Work—What will be the future developments of the work in Cattaraugus County? The present system is a demonstration, and like all other new work done on

an extensive scale, it is costly. The trustees of the Milbank Fund will withdraw their financial aid, as of course they should do, as soon as sufficient evidence is obtained to show the value of the demonstration. If the work is to go on after a year or two, it must be supported locally.

The evidence is that the County Health Department is a decided success, and that both physicians and laymen wish it to be continued.

The tuberculosis work will be extended in all its phases.

The control of communicable diseases will be done with increasing efficiency by local health officers and practising physicians, but the County Health Department will be available in emergencies and for educational work.

The laboratory will be continued and extended. At present every doctor in the county is patronizing it.

The examinations of milk and water supply, and the control of sewage will be the functions of the County Health Department.

Maternity and child hygiene work will be extended largely by educational means through the visitations of mothers by nurses.

The school hygiene work will be extended and developed as fast as standards can be developed in both the county and other parts of the State.

The nursing staff may possibly be reduced, but after all, the County is not oversupplied with nurses. The characteristic of the Cattaraugus County Nursing Service is not the number of the nurses, but their distribution to every part of the County.

The work of publicity and education will probably be conducted largely by the lay public health organization—the County Committee on Tuberculosis and Public Health, but also by the officials of the Health Department. Still it is too much to expect of human nature that the officials of the future will continue to keep such complete records and make such extensive studies as are done at present with stimulation from outside sources.

The addresses of disinterested observers at the meeting, and the convincing arguments of the leaders in the demonstration, and the actions and appropriations of the Board of Supervisors all indicate a continuance of the work.

The most hopeful sign of the continuance and expansion of the work is the attitude of the medical profession of the County. The growing concord and agreements in the trinity of health organizations throughout the State point to an increasing cooperation of physicians, health officials, and lay organizations

which in other counties will result in an increasing adoption of all the essential features of the work in Cattaraugus County.

The work in other counties may not always take the exact form of that in Cattaraugus County. The former development of health work in New York State has not been along county lines, because the county has been a minor unit governmentally, and not the major unit as in the Southern States. Still it is difficult to see how rural health work can ever be done efficiently except on a county-wide basis. Some counties are well adapted to the county unit plan, others to the city and village plan. A combination of the two plans will probably be adopted, as indeed is already being done in Cattaraugus County. That County continues its local health officers, although little publicity has been given to their work.

Extension to Other Counties—The extension of the County Health Department to other counties will probably come about through the spontaneous action of the physicians, health officers, and lay workers. A tentative plan of campaign which was proposed for Nassau County would seem to be adapted to other counties.

In the Spring of 1922 the plan of establishing a county department of health was discussed in Nassau County. It was proposed that the present local health units be continued, and that a county health department be established to consist of a health officer, two or three clerks, and a small staff of public health nurses. Headquarters were to be maintained, and Ford cars for the transportation of the workers.

The County unit was to be available for the assistance of the health officers in emergencies and in any new line of work that might be undertaken.

This plan was presented to the health officers individually, and later in a meeting of the health officers, by the Deputy Commissioner of Health and other officials of the State Department of Health, and was unanimously approved.

The next step was the presentation of the plan to the County Medical Society, which approved the plan by a large majority. However, the plan was not consummated because it was made a part of a radical proposal to change the entire county plan of government, which was defeated. The plan by itself met with favor.

If the health officers and physicians of a county will unite in asking for a county health department, to start modestly and grow from within, it should stand a good chance of adoption in any county.

"COOPERATION BETWEEN THE STATE MEDICAL SOCIETY AND HEALTH AGENCIES"

By GEORGE M FISHER, M.D.,

PRESIDENT OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

THIS is the second year in which the State Medical Society has been invited to participate in your deliberations. It is bringing about the desired results which we are looking for, and that is coordination in the health work.

I want first to congratulate this committee and make a few remarks as to the impressions that I have received as President of the State Medical Society, the first of which is the order, the promptness, the executive efficiency which you have shown in pulling off these tours and these meetings.

The second impression I want to make is the wonderful support you are getting from the laity in Cattaraugus County.

And the third impression, and that which is probably more important than all, is the support which you are getting from the physicians in Cattaraugus County. I talked with your head yesterday and he tells me that they are practically working one hundred per cent. Now, I am frank to say that that is a great deal more than they are working in any other part of the State, and I believe it is due to your work here. It is due to the great incentive which you have put among the people, and which you are driving at them at all points.

I don't know where in the State of New York there is a better place to have a meeting of this kind than right here among your hills and valleys where every phase of nature speaks of health.

At this point I want to thank the State Charities Aid Association for the work which it has done during the last campaign on medical legislation. I am frank to say that I doubt whether we would have carried our Medical Practice Act had it not been for the many public health agencies which have cooperated with us, and, as President of the State Society, I feel obligated to you and to say to you in behalf of the Society that we thank you for your many motives, your many energies, that you put forward, and the impressions which you have made upon our legislators in carrying this movement through after the many years in which it has been fought.

There is another thing which appealed to me and that is the ease with which you talk money in getting these things. Now, yesterday your Assemblyman and Chairman of the Board of Supervisors didn't seem to think it was going to be any great thing to raise the amount of money necessary to carry on this work, even though the Milbank Foundation should be withdrawn.

During the last twenty-five years or such a matter, the advancement of medicine has been at such a rapid pace that it has been one of the means of promoting and organizing different health societies throughout the country. They all have the same end—alleviation of human ills, and the prolongation of human life. This has resulted, as far as the practice of medicine is concerned, in three divisions. First, the preventive medicine, second, the curative, and third, which comes in the lay field, is education.

The Medical Society of the State of New York, which is composed of the component county societies, up to within a short time ago has taken very little active part in the work of the health agencies, the cause of which is probably due to the idea on the part of the profession that their special work has been encroached upon, and upon the part of the health agencies too much exclusiveness and not a tendency to take the medical societies into their confidence.

The individual physician is a busy man, too much occupied to study the signs of the times and know the steady trend of these activities. Many health agencies have been led to consider themselves able to carry on work without the aid of the physician as a man, forgetting that in unison there is strength. Time has proven both the profession and the health agencies are in error. The physician's prerogative is to diagnose and prescribe, in a narrow sense confined to the individual patient, in a broader sense, care and practice among people, not all of them private patients.

There has been a reluctance to undertake the latter responsibility, which has resulted in the organization of public health agencies. These agencies require a vital necessity to carry on their work, namely financial backing, which the profession, by itself, rarely can assume. The physician is ready to search out the source of illness and epidemics, direct activities that will remove factors contributing to the spread of disease, for example, his attack upon yellow fever and malaria. These problems are large and require prolonged instruction to the people, as with our present campaign against diphtheria. Physicians in such instances can be virtually mobilized to carry on the work of such campaigns, or in fighting epidemics, which was amply demonstrated in 1918 against influenza.

But back of all these activities you will find governmental or lay support, without which these investigations could not have been car-

ried on successfully. The physician should be encouraged to serve on health boards and public health committees in such instances. The medical problems are his, while the involved economic problems are for the organizations. Here is where the two organizations should meet and work in unison, miter together, so to speak.

There has been a tendency for lay organizations to secure a few selected physicians to carry on their work, while it is the desire of the State Society to give the entire profession an opportunity to work on these problems. The physician has always been willing to give technical service, to treat all who call upon him, regardless of whether they can pay for his services or not. It is his pride to serve the hospitals, and he is offering his services freely in public clinics. He is now undertaking a place in the public health activities and studying ways of informing the laity of whatever is injurious to health, and emphasizing what promotes health. It is safe to say that the medical profession is the more unselfish of all professions. Give him personal incentive in these activities and you will awaken a ministry of strength for good which cannot be over estimated.

Medical organizations and societies were originated and are sustained for scientific development of individual physicians. They

have naturally been slow in the development of civic affairs. As a function of theirs, they have always been desirous to participate in public health activities, and many times they find it difficult to prevent the appearance of striving for business. Too much attention has been given to scientific affairs and not enough to civil, resulting in a retiring tendency on the part of many of the profession, when his real tendency is to enter into health activities.

The physicians have been indebted to governmental and lay agencies, or voluntary welfare organizations, for powerful stimulation in their private work and preventive medicine. Individual physicians in the State Medical Society and other special branches of medicine are pointing the way and gradually the entire fraternity is taking up the broader task of preventive medicine. There are in all organizations those looking into the future further, and who have advanced ideas beyond the rank and file. They may be called dreamers, perhaps radicals, but it has been many times proven that they were leaders.

We are rapidly arriving at the point where the medical societies can see the value and necessity of health organizations, while the latter can see their work only begun but never finished without the aid of the medical profession. This partnership will carry the work into every hamlet.

IMPRESSIONS OF THE CATTARAUGUS COUNTY DEPARTMENT OF HEALTH

By EDWIN P. KOLB, M.D.,
HOLTSVILLE, N. Y.

THE IMPRESSIONS OF A PHYSICIAN FROM THE OPPOSITE END OF THE STATE

THE three-day session of the Annual Meeting of the State and Local Committees on Tuberculosis and Public Health of the State Charities Aid Association, was held in Cattaraugus County, June 1st-June 3rd, 1926. The Annual meeting was made the occasion for an observation tour of the Rural Health Demonstration being carried on in that County, with the advice and largely through the financial assistance of the Milbank Fund, and under the supervision of the State Charities Aid Association.

This Rural Health Demonstration being county-wide, covers a larger area than any intensive public health demonstration previously attempted.

The purpose of the demonstration is to prove that an intensive campaign, covering all phases of public health work, conducted over a period of years, by an efficient organization, following a well-planned program, and liberally financed, will raise the standard of health and physical well being of the community and

reduce the morbidity and mortality from disease. If the hopes and aims of those conducting and supporting the demonstration are attained, it will verify the statement of the late Dr. Herman M. Biggs, that "Public Health is purchasable. Within natural limitations any community can determine its own death rate." The County has been organized as a Health District with a County Board of Health, a full time County Health Officer, and a County Laboratory with a Medical Director and a corps of technicians. The County is divided into eight health districts, each having a district health station. These stations are the headquarters of the district nurses and are the clinic centers. There are at least two field nurses in each district, fifteen field nurses and four supervisors being employed. The various public health activities being carried on include tuberculosis work, clinics, consultations and home supervision, communicable disease, venereal disease, maternity, infant and child hygiene, mental hygiene, health education,

nutrition, public health nursing, sanitation and food inspection, etc. Neither the functions nor duties of the local health officers have been changed, nor have the local medical school examiners been supplanted.

The program of the session included tours to various sections of the County, inspections of the various departments of the health organization, and a series of meetings which were addressed by well known health authorities, the members of the staff of the demonstration, visiting and local physicians, and laymen. The tours were carefully planned, the local staff of the Health Demonstration acting as guides. The programs of the meetings were well arranged and the meetings were of exceptional interest. Among those in attendance who took parts in the program were an internationally known authority on public health, the President of the Medical Society of the State of New York, representatives of the State Department of Health, National Tuberculosis Association, State Department of Education and health workers from all sections of the State, most of whom took part in the program of the meeting.

The following is a summary of our impression of the demonstration.

Extremely valuable and very thorough public health and preventative medical work is being carried on in Cattaraugus County.

The organization is complete, and the personnel highly efficient.

The demonstration is unique in that it thoroughly covers all phases of public health work and is reaching the most remote rural sections of the County. Unlike some of the public health programs of lay organizations in the past, the aid, advice and cooperation of organized medicine, the State Health Department, and the general practitioners, have been warmly welcomed, perhaps solicited, and the family physician is being considered an important factor in public health work.

The demonstration is proving that the general health of any community can be greatly improved by intensive public health work, conducted by an efficient organization, with a well-planned program and sufficient funds with which to work.

We believe that the value of this work will be shown in the future vital statistic records of the County. We doubt if the apparent results of the work as shown by recent vital statistics can be attributed largely to the results of the work, for the demonstration has not been carried on a sufficient length of time for its results to be reflected in vital statistics.

It seems evident that the demonstration has the approbation and enthusiastic support of

public officials, many deep thinking, public spirited laymen, and the majority of the local medical profession. Whether this will be true after outside funds are withdrawn and much of the financial burden falls upon the taxpayers, remains to be seen.

It seems probable that when the demonstration period ends and the Milbank funds are withdrawn, considerable more money will be spent for public health work than previous to the demonstration. We predict that the County Health District with a full time County Health Officer will be continued, the County laboratory will be retained and a considerable part of the nursing organization will be employed. Probably it will not require so large an organization or so great an expenditure of money to continue efficient work. An intensive demonstration, with its large organization, elaborate machinery, and detailed work in collecting and tabulating comparative statistics, is naturally expensive. It requires considerably less power for the continued movement of a machine after it has gained momentum than was necessary to start it.

We doubt if public officials in other Counties, at this time, are likely to appropriate sufficient funds to carry on intensive public health work of this kind, unless the work is initiated with the aid of outside funds.

We think the tuberculosis case-finding program is not as extensive as it might be, in that they have not gone back far enough in locating probable sources of infection from which to work. We understand that the reported cases of the year previous to the demonstration were taken as the starting point in the follow up of known contacts. Unsuspected tuberculosis is more likely to be found in those whose contact with an open case dates back some years than in those whose contact has been comparatively recent.

The Cattaraugus County Health Demonstration has afforded the first opportunity for making a sustained study of health conditions in a county-wide district. Hitherto no one has known with any degree of accuracy, how much public health work has been carried on in any rural community, because there has been no agency available for collecting the information. The Cattaraugus Health Demonstration is like a public accountant that has sized up all items of public health work. But unlike an accountant, the Demonstration leaders have not given publicity to the defects found, but they have quietly undertaken the task of making up the deficiencies both financial and scientific. Their work has been wholly constructive, and so they have made a real Demonstration of rural public health work.

THE CATTARAUGUS COUNTY HEALTH DEMONSTRATION THE IMPRESSIONS OF A LOCAL PHYSICIAN

By A. L. RUNALS, M.D.,
OLEAN, N. Y.

I AM writing the impressions of a local physician, of the work accomplished in Cattaraugus County by the Health Demonstration and reviewed at the annual meeting of the State Committee on Tuberculosis and Public Health held in this county June 1st, 2nd and 3rd, 1926

I should state in advance that on such short notice I am unable to obtain the impressions of all of the physicians of the county, and will have to give only my own and such others as I happen to have obtained in conversation with those that I have met from time to time

There has been inaugurated in Cattaraugus County the county health unit plan, with County Board of Health and full-time County Health Officer. The program carried out has developed a system of diagnostic clinics, which have included mostly chest examinations, a system of county-wide nursing service available to all the physicians and which is of particular value in communicable disease control, health education by means of health talks and conferences, and assistance to such agencies as already existed, including a county tuberculosis sanatorium. The local laboratory has been developed to serve the whole county as a county diagnostic laboratory, as well as the Olean venereal disease clinic, which is giving county-wide service. A consultation service with portable X-ray, maintained by the County Board of Health, has been of much service to physicians by rendering X-ray service in the home in cases unsuitable for removal to a hospital or X-ray laboratory. Many tuberculous and non-tuberculous pulmonary conditions are diagnosed in this manner that would otherwise go undiagnosed or incorrectly so. I have been informed that the consultation service now includes twenty to thirty calls per month which, being made only at the request of the attending physician means that many physicians of the county find the service of real value. The fact that this service is obtainable day or night and any day of the week makes it the more valuable. At the various diagnostic clinics which are held at frequent intervals throughout the county, no applicant is given a diagnosis or advice as to treatment but he is referred to the family physician, to whom is mailed the report of the examination. I believe that is the only manner in which these clinics should be managed and that many early cases of diseases reached their physician sooner than would otherwise occur. At the venereal disease clinic no patient is accepted for treatment unless referred by a physician, and this rule eliminates the abuse of the clinic service.

The County Diagnostic Laboratory, located at Olean, equipped and manned to examine smears, cultures, and make complement fixation tests, is frequently of prime importance in diagnosis and in furnishing prompt treatment. This laboratory is used by practically every physician in the county, which in itself testifies to its popularity.

The physicians of the county have cooperated in many ways in carrying out the program. Toxin anti-toxin has been administered to about 3000 children by various local men, including all the local health officers who are cooperating in the program. Child health conferences are being held by eleven local physicians throughout the county, two of whom are physicians who are members of the County Board of Health. This work has stimulated private conferences between patients and physicians because of the health propaganda.

I am seeing far more people now than formerly who desire an annual health examination or a special examination because of a symptom that formerly they would have attempted to "wear off."

I formerly believed that the office of local health officer was solely held by the man so officially designated, but now the public at large look to their private physician for guidance in methods adopted for the prevention of disease, and he becomes interested in the prevention of such communicable diseases as diphtheria and scarlet fever, and thus is aiding in the lowering, in later years, of cardiac and renal diseases. This has been brought about by popular health education. This is an important phase of the work of the County Board of Health, and I quote from a recent address of Dr. Wendell C. Phillips, president-elect of the American Medical Association, "The new era in medicine which physicians of the future must be prepared to enter must rest on the foundation of a wide and comprehensive plan of personal and public health education."

Organized health demonstrations cannot perform their full function in a community without the cooperation of the family physician, for though the value of toxin anti-toxin and similar preventive measures may be told to every parent, it is the family physician whose opinion is asked before the consent slip is signed. The family physician, as a representative of the County Medical Society, should have proper representation on the County Board of Health and the opinion of the County Society sought on health problems. This stimulates the physician to keep abreast of all sound health movements and results in

nutrition, public health nursing, sanitation and food inspection, etc. Neither the functions nor duties of the local health officers have been changed, nor have the local medical school examiners been supplanted.

The program of the session included tours to various sections of the County, inspections of the various departments of the health organization, and a series of meetings which were addressed by well known health authorities, the members of the staff of the demonstration, visiting and local physicians, and laymen. The tours were carefully planned, the local staff of the Health Demonstration acting as guides. The programs of the meetings were well arranged and the meetings were of exceptional interest. Among those in attendance who took parts in the program were an internationally known authority on public health, the President of the Medical Society of the State of New York, representatives of the State Department of Health, National Tuberculosis Association, State Department of Education and health workers from all sections of the State, most of whom took part in the program of the meeting.

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THE SIGNIFICANCE AND VALUE OF THE CATTARAUGUS COUNTY HEALTH DEMONSTRATION TO NEW YORK STATE

By DR. EDWARD M. CLARK,

DISTRICT STATE HEALTH OFFICE, STATE DEPARTMENT OF HEALTH

Mr Chairman, fellow health workers I esteem this a very great honor and a very great privilege to represent here before this auspicious gathering the Commissioner of Health of the State of New York. There are two things that impress me very strongly. One is the great educational value that is bound to result from this movement in Cattaraugus County. The other is the demonstration of the great value of the public health nurse as an adjunct to the health doctor in doing public health work.

I am glad that the people in charge of this Demonstration have been wise enough in their day and generation to put into operation measures which enable them to employ a large number of expert public health nurses to work in the various fields of activity which this Demonstration covers.

I was struck too by the tremendously important and far-reaching program. The educational features of this campaign to me are simply remarkable and I am pleased to note that, because in my years of experience as health worker I have always maintained that seventy-five per cent of all appropriations for public health work could be honestly and wisely spent in educating the people up to the value and importance of looking after their health.

The discoveries which have been made in modern biological science have given us working tools that we never possessed before. When I began the practice of medicine forty years ago, a compound fracture of the thigh meant amputation or death, and sometimes both. We knew nothing about sepsis, that valuable hand-maiden of modern surgical practice. During the last fifteen or twenty years, we have had placed in our hands weapons by which we are able to exterminate pestilences. The work of General Gorgas and his confreres in discovering the mode of dissemination of yellow fever enabled the Government to build the Panama Canal, a feat which has won the admiration of the world. We have practically conquered typhoid fever. We are rapidly conquering diphtheria, and with the educational

work of the last four or five years we are able to go into any community almost in the State and after a little bit of intelligent explanation we can do almost anything we want to do. The people are becoming educated. They realize as they never realized before the value of health. They are coming to realize, not only the common people, but our members of boards of supervisors, our members of city councils, our statesmen in the halls of legislation and State capitols and in the National Capitol, that the greatest asset any nation can have, that any family can have, that any country can have, that any city can have, is not the material resources that are about us in this beautiful, prosperous country of ours, but the amount of physical health that the people possess. This was demonstrated largely in the World War. The whole thing is resulting in the survival of the fittest, and when I say the "survival of the fittest" I mean the healthy people who are growing up in the country today.

One of the difficulties we have to contend with in doing public health work is the meager salaries paid good trained health workers. A young man who goes into public health now, unless he has some reasonable expectation of a big inheritance, won't get very much in the way of this world's goods, and his biography is pretty certain to be written in the short and simple annals of the poor. But if he is a real trained public health worker, he will in time become imbued with the broad spirit of altruism and a love for humanity that will make him do his best work regardless of the salary he gets. That is the position the average health worker is enjoying today.

The trained public health worker who has been in the service for many years becomes so wedded to his work that after a time he is satisfied if he can get a little something to eat and a bed to sleep in. He gets interested in his work and begins to generate love for humanity, and bye and bye he begins to enjoy the fruits of his labors, and his work is a work that is never done, he must keep everlastingly at it, you cannot stop for a moment, and every day has got to be a full day.

THE COUNTY NURSING WORK

By Mathilde Kuhlman, R. N. Director Division of Public Health Nursing, State Department of Health

I HAVE visited your sanitarium many times. It has always been filled with patients who are happy and contented and willing to stay there, the doctor was interested and went there every day to see them, they had good nurses, and that there was every manifestation

in this county of human interest in this sanitarium.

It is one thing to get the patients in the sanitarium, and it is quite another thing to keep them there. I feel like carrying these

that degree of harmony necessary for the best results in group movements. Through the efforts of the County Health Department a post-graduate course of lectures has been given in obstetrics and infant hygiene, which was well attended by all the members of the county association throughout the past winter.

At the inception of this health demonstration, the point was stressed that a community can properly carry out its own health program, and to fulfill this plan I believe local men should be stimulated to acquire such post-graduate instruction and experience as is necessary to equip them to carry on in this work. This has been done to some degree, but not sufficiently in all branches. I believe the Demonstration is and will be a success. The personnel has been good, the cooperation has been good, but in my opinion there must re-

main at all times a close cooperation between Demonstration officials and local physicians, which requires effort and understanding on the part of each, and a proper appreciation of the value of the other fellows' opinion. The Demonstration officials should keep constantly in mind the fact that they at all times intend to work with the local physician, and that he in turn intends to cooperate with them.

A significant fact is that the procedure adopted by the County Board of Health to develop various phases of its program of health activities has in no way been an experiment. The program of the County Health Department has been carefully conceived, and its execution has not departed in any way from the approved methods of health department practice as carried on throughout this country.

THE COUNTY TUBERCULOSIS WORK

By ROBERT E. PLUNKETT, MD,

DIRECTOR OF THE DIVISION OF TUBERCULOSIS, STATE DEPARTMENT OF HEALTH

I feel I would be extremely ungrateful if I should miss this opportunity to express my personal feeling in regard to the success of this program which has been brought about by the well directed energies of the County Health Officer and his advisers, and the close application of work of the directors and members of the various bureaus. And I sincerely feel that a lot of the credit has been justly placed in the nurses. I do not think there is any subordinate in any public health program who is more valuable and of greater assistance than the well-trained, wideawake public health nurse.

Regarding home treatment of tuberculosis, unless it is carried on with the cooperation of the superintendents of the sanatoria and the medical profession at large, it is going to tear down the sanitarium program we have been preaching and praying for for twenty-five years.

There is need for sanatoria, as we all know, and there is a need for sanitary home treatment. We cannot get to it until we get the necessary machinery to carry it out. You can imagine what would happen in any county if we should go and talk to the individuals suffering from tuberculosis who have always and always will be anxious to stay at home, and who will say, "Why, the experts say we don't have to go to a sanitarium any more." They would all grab it, and we would as some medical men have predicted, transfer our sanatoria to institutions for the treatment of heart disease, because we could not get the patients in the sanatoria.

So I am for home treatment, but I am for home treatment under these conditions, under the proper institution. And when I say "institution" I mean not only the superintendents of the institutions, but the cooperation of the medical profession, because I care not what anyone says, unless you have the cooperation and sympathy of the family doctor you can only go just so far, and I don't care how large a program you have got. The family doctor in the small community is the friend of the family. He stands next and nearer to them than any other individual, I don't care who the individual is from the outside that comes in and talks to that family, no matter what they tell them, they may lose a little confidence in their family physician, but when they have illness in the home and they need that close friend, when he tells them what he thinks, they are going to carry out his instruction. So if any county seriously considers the institution of this form of treatment of tuberculosis, seek the cooperation not only of the superintendents, but of the family doctor. Nobody is going to replace him.

I appreciate very much Dr. Jensen's remarks concerning the children. I think that is one of our most important features in anti-tuberculosis work. There is no form of tuberculosis, and there is no program that can be complete unless it has provision for the diagnosis and care of children. I think that the work they have done in these clinics with these children is going to be an incentive to us from the outside to instigate and initiate similar programs in other counties.

IMPRESSIONS OF THE CATTARAUGUS COUNTY HEALTH DEMONSTRATION

By SIR ARTHUR NEWSHOLME; K.C.B., M.D., F.R.C.P.,
FORMERLY PRINCIPAL MEDICAL HEALTH OFFICER OF ENGLAND AND WALES

ONE fine and great feature of this demonstration is that it is an admirable combination of official work with voluntary work—such a combination in its closeness of association as I have never seen in any other locality. And it appears to me that the proper setting of voluntary work is the official framework, that inside that frame work it can do so much better work than if it is absolutely separated and outside.

The second great feature of this work here is that it is a complete public health program, it is a program including the whole and every branch of public health work. Driving, as I did, into Olean on Saturday last, the car was obstructed by a drove of Holstein cattle and every one of those cattle was marked, indicating that it had been tested for tuberculosis and found to give a negative reaction. That is an indication that the fundamental sanitary welfare of the district is being supervised and looked after, and with these fundamental conditions having been fulfilled, that then is the time for the application of the special measures which are being promoted in connection with this demonstration.

A great deal, as I say, has been accomplished. I cannot stay to tell you how much, but the possibilities are far greater than the actual realizations up to the present time.

I have devoted more than forty years of public service to public health work and during the whole of that period I cannot say that I have met any other example of work which is so complete in its organization as this, and which has in it so great possibilities of completely successful result.

A great deal can be done in five years, but I think the Milbank Trustees would be very short-sighted if they stopped there after so limited a period of trial. But meanwhile undoubtedly the most reassuring fact financially is that year by year the county and local authorities are themselves giving a larger and larger proportion to the public health work here, showing that they are keeping pace with the Milbank Trustees and thus doing their share toward bringing the total result to one hundred per cent efficiency which we all desire.

There was in this country a famous Colonel named Ingersoll, who, when he was challenged it he had to make a world how would he make it better than the present one, retorted that he would make health catching instead of sickness. That was apparently a very clever statement, but a very short-sighted one, because

that is exactly what health is. It is catching—much more than sickness. If it were not so, very few of us would be here today. The example of healthy conduct in one person is contagious with others, and the example of Cattaraugus is going to be contagious for the rest of the world. The force of example is extremely great.

Now, the objects which we have in view, as has been indicated, are the diminution of mortality. That means the prolongation of life, the enhancing of health, and the development of the full nature of man, physical, mental, and moral. And no public health policy which does not compass within its range the whole nature of man, to my mind, is not completely fulfilling its functions.

So I attach very much importance to one particular branch called the social hygiene branch of the demonstration, which has not yet been more than slightly developed. There are great possibilities in that branch of the work and it needs extending very greatly. It is work in which the clergy and ministers of the community and the teachers, in fact, every social well wisher can do excellent work, and I am quite certain that that help will be forthcoming.

One has to realize that the parts of public health work in which the least success has been achieved in the past are those in which conduct is concerned. The diseases against which we have been most impotent are those in which conduct is concerned. That is so with regard to tuberculosis, to a less degree, but the conduct is steadily improving and the standard of model conduct in fighting the possibilities of infection of other people is rapidly rising, so the deathrate from tuberculosis has been cut to half—still too high. But when we come to venereal diseases we realize we have a bane in our midst which is causing something like a fourth of the total deaths in some communities. Yet it is largely going uncontrolled. And that disease could be entirely abolished in a single generation were the standard of conduct that which everyone in this room, I am quite certain, would entirely approve.

Why is that standard of conduct not applied? I am quite certain that unless we add to our child welfare centers and in our elementary schools, and unless our mothers are fully trained in the method of training early character in childhood so when the time of temptation and storms of passion arise, there will be paths of inhibition and resistance so

things to other counties in the State that are struggling along to do the work

Miss Gamble has told you that the staff now consists of fifteen public health nurses, three specialists, the supervisor, and the director

One of the things that impressed me and which is applicable to every county in the State, is the wonderful cooperation and the unity of purpose of every single worker in this Demonstration. Mr. Nelbach is going to tell you how it is to apply to every county, but I can say that that cooperation, that spirit of unity, should exist in every county, even where there is only one nurse. It is necessary for her to work with the other workers, with the county agent for dependent children, with the home economic worker, and everybody else, and there should be that unity of purpose. All nurses should know their own work and stick to their own work. So that applies to every county.

Then, another thing which impressed me was the wonderful interest and the very active way in which the nursing committees are functioning, and that is something which is very, very important for a nurse, even one nurse in a county, it is very important that she should have a committee and that that committee should be very active.

Another thing which impresses me here and which is very necessary in any county and that is that any county where a general pro-

gram is being carried on—and that is being done more and more—it is so necessary to have a proper balancing of a health program. I feel very sorry very often for the one county nurse whom we turn into a general public health nurse because there is the urge of so many things. Quite recently two different nurses from two different counties came into my office and they said, in tears, "There is so much expected of me. I am expected to do tuberculosis, I am expected to do pre-natal and child hygiene, and the State Department of Health wants me to be active in the toxin anti-toxin program, and my committee think that the school work is the most important thing I can do and they are urging me to do school work."

Now, the school nursing is perhaps the easiest thing that the public health nurse has to do because her group is all there and it is less difficult than the work with the pre-school child, but in my estimation the pre-natal work and pre-school child work are of the very greatest importance. That and the tuberculosis work, I think, are the two outstanding things that should be carried on in every county, because, after all, school work is important and the pre-school child is the school child of tomorrow, so I feel that it is very important for the nurses to have their program arranged so they will be doing pre-school health work.

THE DEMONSTRATION AND BOARDS OF SUPERVISORS

By STANTON P. HULL, M.D.,
PETERSBURG, N. Y.

PRESIDENT, STATE HEALTH OFFICERS ASSOCIATION

WHAT has been the effect of this Demonstration upon the Boards of Supervisors throughout the State? The question is to sell the idea to a Supervisor. That can be done by education. It is a hard task to sell a man that is in the political game the idea. But if he is convinced that his constituents want him to vote to expend money, he will do it.

Now you have had the history of this county and how the Supervisors got behind the movement. What is true in Cattaraugus County will be true in other counties. They are of a similar type. They all belong to the human race, although we have been told sometimes that politicians are different, but nevertheless they want to do what their constituents want them to do, and workers from this county and those of us who have visited here going back to our own counties and selling the idea to our Boards of

Supervisors, and they have to get in touch with the lay committees, or, if the lay committees get in touch with the members of the Boards of Supervisors, and that is the only way to stimulate interest in public health work in other counties.

What effect will it have upon the New York State Sanitary Officers Association, which is composed of the health officers throughout the State? I am sure that that organization will be found in the front ranks, doing anything for public health in any county. That is their duty, their function.

As health workers, the medical man is rapidly changing. His idea of a few years ago has changed. He is getting into line on the work of public health. And just such Demonstrations as we have here is convincing all of us who are interested in public health work that the family doctor will cooperate.

nurses that that state of things can be put an end to. There ought to be no endemic diarrhea in this county, and the unborn child ought to be reassured on that point.

Then, supposing I survive to be two or three years old. I want to know what care you are going to take of me in the pre-school age. "Are you going to treat my decayed teeth?" I ought not to get any if I took cod liver oil, but supposing I did, are my teeth going to be attended to?

"Suppose I begin with slight adenoids? Is it going to be treated in the early stages, or am I going to arrive in school with adenoids fully developed, where the mischief is already largely done?"

Attention to the pre-school child is necessary in order that school hygiene may become a practicable matter.

So I may go on to the question of school life, but I needn't pursue the simile any further because you see the full importance of it. But at any rate I feel confident that although a great deal has been done, very much more is going to be done.

Dr. Fisher has told us that the medical profession was willing to cooperate in this, so that cooperation is secured, and one of the first

things that will need to be done is to ensure that active cooperation, inter-communication and cooperation between the Health Department and the private physicians, without which no complete success can be obtained.

We get together at these conferences and we talk this sort of thing, and as we enthuse together and we pass resolutions together, "Whereas, etc., etc." "It is resolved, etc., etc." Then we go home with a glow in what is supposed to be in our precordial region and the next morning we wake up and the glow hasn't entirely departed. We remember what happened and rub our hands, "Now that job is finished, what's the next thing I have to do?"

That isn't what is being done here. It is not all talking. We are conferring together as a preliminary to action, and action is going on here, and tomorrow when we go home we shall try and follow out the inspiring example which is being set us by Cattaraugus County.

I wish I could live another ten years just to see what the result of this great effort is. I am quite certain, as has been said yesterday and today, it will make history, and I am quite certain everyone here and especially the private physicians and citizens of this county will do their share in helping to make that history.

DR. NEWSHOLME'S IMPRESSIONS GIVEN AT THE CLOSE OF THE MEETING

Although I have had more than forty years' experience in public health work in my own country, and although I can say without prejudice that the general average of public health work in that country is probably somewhat higher than the general average in this country, notwithstanding that, I am constrained to say that I have never in my own country nor in the visits which I have made to other countries in Europe seen work which is exactly like the work which is being carried on here. It is, I think, the most striking example I have ever come across of active and exact co-operation between official agencies and voluntary agencies, and that is the marriage which I think ought to take place in every community when the service of humanity is concerned.

There always has been and always will be ample scope for voluntary workers. They are the pioneers. They are not shackled the same way official workers are, and the general result

is that new movements are commonly begun on the voluntary side and are gradually taken up on the official side when they become going concerns. And the general state of all voluntary movements, even the work you are doing now, is to be swallowed up in official work. But that is no sooner worked than other needs come along, and so the range of voluntary work and the progress of humanity is gradually extended.

You will need the active and steady co-operation of every member of the medical profession as well as of the general public, and the presence of doctors around me here tonight indicates that that support will be given.

I wish every success to this work, I have every confidence in its future, and I am sure that if you will continue in well doing, as I have no doubt you will, then the work here will become an example for the whole world.

far developed that unless that is done we shall not succeed in getting rid of these diseases which are largely a question of deficiency in conduct

I want to emphasize this to you that any death which occurs before old age is either due to accident or negligence, or it is due to suicide or murder. Only those three categories will include all deaths occurring before old age. Mishaps may occur, but a large proportion of deaths are murders. The person who sells whiskey when illegal to sell, and produces the six deaths which occurred from acute alcoholism in Cattaraugus last year,—murder. The person who drank that whiskey and killed himself,—suicide. And that reminds me of the fact that quite apart from any problem of prohibition, surely it is part of the program of this Health Demonstration to teach the physiological bad effect of a single glass of whiskey on any man who has any work to do. That is an accepted point right through the civilized world, that no work can be so well done with a single glass of whiskey as without it, and therefore, from the physiological and medical point of view it is part of the Health Demonstration to drive that truth home to everybody.

We sometimes hear of people digging their graves with their teeth. Many of us do it. Most of us after middle age undoubtedly eat too much, and there are many errors in our dietetics which really mean so long as we persist in them that we are going to die five or ten years earlier than we need to if we would regulate our lives as the dietitians will be able to tell us about.

I would like to take another set of illustrations. I would like to imagine myself an American child hitherto unborn and in that land from which the babies come, and I believe in that particular land before birth there is a great deal more knowledge than we know about, and I am not sure that they are not familiar with the literature which the Cattaraugus Demonstration is getting out. Well, I think you agree to those assumptions. That being so, I say to myself in that ante-natal region, "Shall I be born in Cattaraugus County, or elsewhere?" And I say, "Well, I am not so sure about that." I want to know, "Is adequate care going to be taken of my prospective mother, or not?" I don't know which mother it will be. "Are all the prospective mothers in Cattaraugus County going to be looked after during that period?" "Are the doctors going to cooperate with the nurses in order that the proper examinations and advice may be given so I may have a chance of being born alive and being born healthy?" Then after that, I, that is, the baby, I want to know next, "Am I

going to be born at the time of birth under satisfactory conditions?" I have read in some of the official reports of Dr. Douglas and other people that the odds are that seven mothers die in this country out of one thousand babies born alive, one in one hundred and thirty. I am not willing that my prospective mother should run that risk, and I had rather be born in a community like poor benighted England where the chances are only three to a thousand.

"Furthermore, I have read a great deal of medical literature lately and I learn that the use of forceps very often is dangerous when they are used prematurely, or in unsatisfactory homes, or away from a hospital where proper care can be given. Sometimes babies are born dead. I don't want to be born dead. Furthermore, if I am born alive, I don't want to have a cerebral hemorrhage which causes me to die of convulsions a month later. If I survive the convulsions, I don't want to be a blithering idiot the rest of my life. And all that may happen through difficult birth."

"Furthermore, I have heard and it is scientifically tested and proved that if my prospective mother, when she were a baby a month old, had been given a teaspoonful of cod liver oil every day during the first month of her life, she would not have developed rickets, and not only would she thus have been safe from many dangers of life and health in her infancy and childhood and school life, but also she would have been saved from having one result of rickets, a contracted pelvis which is not large enough to secure birth of a large baby, or can only secure birth of a large baby under serious difficulties and dangers to the mother. Am I going to be born the child of the mother who has had cod liver oil at the time of infancy? If not, I will wait a while."

Then our inquiring unborn spirit proceeds further. "Suppose you reassure me on those points, I want to know when I am three months old, or six months old, and my mother is no longer able to give me the natural food which is my right, how am I going to be dieted? Is the diet going to be by an old-fashioned grandmother or a doctor who learned his training even before I did, or is it going to be modern and up-to-date scientific feeding which would give me a fair chance of living to eighteen months old?" As a matter of fact, in this county there has been very little reduction from endemic diarrhea. It is one of the bad points here, and it is perfectly clear that the nurses cannot improve that without the active study and help of the private practicing physicians in this county. The nurses have to follow the advice of the doctor. It is only by combination between the doctors and

nurses that that state of things can be put an end to. There ought to be no endemic diarrhea in this county, and the unborn child ought to be reassured on that point.

Then, supposing I survive to be two or three years old. I want to know what care you are going to take of me in the pre-school age. "Are you going to treat my decayed teeth?" I ought not to get any if I took cod liver oil, but supposing I did, are my teeth going to be attended to?

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is that new movements are commonly begun on the voluntary side and are gradually taken up on the official side when they become going concerns. And the general fate of all voluntary movements, even the work you are doing now, is to be swallowed up in official work. But that is no sooner worked than other needs come along, and so the range of voluntary work and the progress of humanity is gradually extended.

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I wish every success to this work, I have every confidence in its future, and I am sure that if you will continue in well doing, as I have no doubt you will, then the work here will become an example for the whole world.

WHAT IS HEALTH WORTH?

By HOMER FOLK,
SECRETARY OF THE STATE CHARITIES AID ASSOCIATION
NEW YORK

WHAT does it cost you to be sick? What does it cost your families and relatives and friends? Think it over a minute

I have had two little instances in the last few weeks in my personal acquaintance. A young man—just a little out of college was trying to get his home established and own his home, his wife was ill. They couldn't afford to have a trained nurse. She wasn't ill very long, no especially complicated or very serious things, but the sum total of his sickness bill was five hundred dollars. That represented the total amount he had hoped to save that year to pay on the house, so he would own his home. It is already dated some years ahead, and that little illness shoves it another year ahead—just one little spell of illness.

Now, another dear friend of mine of many years standing, somewhat older, a bit more established, a social worker whom some of you would know, had a most serious time last summer. He had to go into a hospital and go on the operating table and be taken to pieces pretty much, and some of the damaged parts discarded, and then be put together again, and he had to have a trained nurse for quite a while, two or three of them for a while, and came home, and still had to have the nurse for a while longer than that. I met him at lunch the other day and I said, "Do you mind telling me what the damages came to?" "Well," he said, "without anything except the actual outright cost, it's thirty-eight hundred dollars now, and keeping on right along." Thirty-eight hundred dollars looked pretty big to me, and that seems to be a fair sample. When family budgets are made up, as good people make up budgets, and try to forecast what they are going to get and to spend, when they go on the rocks, isn't it more often than anything else that sickness is the unforeseen thing that enters in and queers the whole game?

We don't have to depend on individual instances that we may happen to know, because there have been some quite serious studies made this last year on what sickness costs, and that is the reverse side of what health is worth.

Some very good and conservative statisticians, on the soundness of whose ideas large businesses have been built, have taken up the question, "What does sickness cost the people of the United States?"

First, there is the doctor's bill, and the nurse, and the hospital, and the drugs and the facilities and that kind of outgo, and they have reached a conservative round figure, which

isn't just a guess but is based on a lot of details that I wouldn't bother with at the moment, that it costs ten dollars a head per year, ten dollars per man, woman, and child outgo for that kind of sickness cost.

Now, of course, besides that, there is the loss in wages, because the sick man and woman cannot work. The man who is on day wages loses his time. If he don't lose it, his employer loses it, if he continues his wages. The farmer loses that time, he falls behind getting in his crop.

On the average, two per cent of all the people at any given time are sick, an average of two per cent. You work out that percentage on the income of the country arising from work and services, and you arrive at another twelve dollars per capita for the entire country, or a total cost of sickness of twenty-two dollars per capita per year.

That is not a guess, that is a very close, careful and conservative computation. My own preliminary guesses ran quite a little ahead of that.

Well, twenty-two dollars a year a head doesn't right offhand at the first moment seem like a terribly large sum, but apply it to the population, say, of Cattaraugus County. What does sickness cost Cattaraugus County, assuming that you represent the average of the country? Well, that little figure of twenty-two dollars applied to your population works out one million, six hundred and twenty-eight thousand dollars per year. That makes fifty-eight thousand dollars spent for health look like thirty cents, doesn't it? Thirty cents is, in fact, just about the ordinary per capita expenditure for health where nothing special is going on. That is in the ordinary run of villages, cities and towns, health work runs from nothing up to one dollar a year. When they spend one dollar a year, they think they are going some. Most of them come around fifty cents a year. Sickness costs them twenty-two dollars a year. When they do a real good job, such as is being done here, all putting together in a pool, it comes to three dollars per head per year, public and private, and all put together.

So you can re-state the question, can people afford to spend one-seventh as much to keep well as it is now costing them to get well?

Then, of course, a great many times they don't get well and they cannot get well, because prevention is relatively simple and easy and relatively certain, whereas cure is quite uncertain and very expensive.

The present health cost, average of health

work, of fifty cents, average between nothing and one dollar, doesn't look very much when you measure it by some other things besides sickness. For instance, it is just the per capita cost of what the people of the United States spend for chewing gum. Chewing gum and health estimated the same value, as gauged by expenses.

Now, if they should put it up to three dollars a head for all purposes, they would then have arrived at the present per capita per annum cost of face powders and cosmetics. An expenditure which has always seemed to me wholly wasted and thrown away because nothing could improve upon those feminine works of art and beauty which God has provided for the world.

Three dollars a year is just one-seventh of what we are spending for tobacco in this country, which just about equals the cost of sickness, twenty-one dollars per head, as against twenty-two dollars.

Now why should we have any county health units? Why spend money for county health units? We have town and village health officers. Why anything more? There is one very simple and direct answer to that. It is because no one performer can be a whole orchestra. I have seen a man who played a piece of music with each hand and blew on an instrument from his mouth, and played one with each foot. He made a noise, but it wasn't music.

Now a health officer, a physician, however good he is (and he can be very useful and do very important work), cannot be at the same time, a physician, a health officer, and a nurse, and a health educator, a specialist in tuberculosis, a specialist in maternity, a specialist in mental hygiene, and all the ten or fifteen other things that you have to have to make a sufficiently diversified and rounded-out health program. You cannot get that in each town and village because a town and village couldn't afford it, and these experts wouldn't have enough to do if you had them all there. You have got to get to the larger basis of the county, to afford to have the diversified kind of service you have to have.

Back in 1908 or 1909 we had a little beginning of the Christmas Seal sale, and the first year the Christmas Seal sale brought in twenty-one thousand dollars. That looked like a lot of money, and some of us thought it would never bring in much more than that, it might reach twenty-five thousand dollars. But the Christmas Seal sale went from twenty-one thousand to thirty-one, fifty, seventy, ninety, one hundred and fifty, three hundred, four hundred and this year just closed, a half million dollars in a round sum from that one source.

When Dr. Fisher spoke of that little conference in the State Health Department, the State Health Department of New York then got an appropriation of seventy-five thousand dollars a year. Well, by 1913 we had gotten it up to one hundred and fifty thousand, and there was a great to do about it. One hundred and fifty thousand dollars for the State Department of Health! It was too much. One of the political parties, through its spokesman in the legislature, said "We are going to cut this in half, we are going to repeal this new fangled law." But before the session was over he forgot all about that. I learned afterwards there was a caucus of his party and there was one vote in favor of repealing the law, and all the others voted "No." The one vote in favor of it was that of the leader, who announced what he was going to do. That is a case where the leader didn't lead. The magnificent sum of one hundred and fifty thousand dollars was continued. That was 1914, and this is 1926. Some people thought (I was on the right side that time) that maybe that wasn't the final total that could be arrived at, that if the State Department really did a great job for health and showed themselves competent and cultivated the confidence of the people, they might get more than one hundred and fifty thousand dollars a year. Well, what did they get last year? One million, two hundred and twenty thousand dollars, annual budget for the State Department of Health.

In 1908 we had a great International Tuberculosis meeting in Washington and experts from all over the world to discuss how to do it, and the conclusion they came to was we had to have tuberculosis hospitals to segregate the advanced open cases of the disease, primarily. So we came back and went to Albany and had one of those little conferences in the evening when you get the real people together and put it before them, the State leaders, and they said "Well, it sounds all right, it sounds reasonable, but there isn't any money at all. The canals and roads take so much money, there is none left. We will let you have a county law if you want it, you can have a law for the county hospitals, if the county authorities vote to do it." I knew in my bones that they thought that was a way of *not* having it done at all, because there wasn't a man I know that really in his inmost heart thought any county would do it. But we said, "Thank you very much, that is a very good idea, probably there ought to be county hospitals." They passed that law. It was written in our office and they went over it and found it very good, made a few changes, and the law went on the books. Then David's little sling the Tuberculosis Exhibit, began to travel around the State. You had one here and one in

Chautauqua County, and I am glad to see so many people here today from Chautauqua County—and after a while a distinguished citizen of that county died and left one hundred and sixty-five thousand dollars in her will for a tuberculosis hospital, and the county added sixty-five thousand more, and about a half a dozen years ago a member of the Tuberculosis Committee of Columbia County died and she left a million and a half to establish a tuberculosis hospital, not limited to that county. There were twelve hospitals that were started by voluntary contributions like that, in twelve different localities, some of them fine places, and most of them turned over to the public a little later, with a lot of public money put in to supplement it. And I am rather more proud of the rest of it. Besides the twelve, there were twenty-four counties where the boards of supervisors, acting on their own initiative, or after a vote of the people, established a county tuberculosis hospital, outright, straight governmental public institution, making a total of thirty-six local tuberculosis hos-

pitals established since that year of 1909 when nobody thought anybody would put any money into tuberculosis hospitals. And those thirty-six hospitals have involved an expenditure for their construction, not for operation, for their construction alone and the grounds and building and plans of nine million, nine hundred thousand dollars.

So I come back to it that you never can tell what the people will spend for health if you show them the results. The rash man is not the man who says the people will do it if they are shown, the rash man is the man who undertakes to put a limit on what the people will do when you show them the facts.

And to this State-wide group of citizens and members of Tuberculosis and Public Health Committees and public officials from all over the State, the one thing I would say to you as you go back to your localities and face your authorities and your citizens on the question of better health is this: Don't let the reproach ever be made to you, "Oh, ye of little faith."

STATISTICAL ASPECTS OF THE DEMONSTRATION

By E. C. BURNHAM, M.D.,

ASSISTANT IN PREVENTIVE MEDICINE OF THE COMMITTEE ON TUBERCULOSIS OF THE STAFF CHARITIES
AID ASSOCIATION

ONE of the first of the vital statistics we consider in any locality or community is the general mortality rate, the rate of deaths per thousand population. There it is for a series of years, 1915, 1916, 1917, 1918, running up to a high rate at the time of the epidemic of influenza to something over eighteen deaths per thousand population, then gradually coming down to about what it was before, running along 13.8, 14.8 deaths. I notice from 1923, 1924 and 1925 a fairly slight but fairly significant drop.

The next one, the "Leading Causes of Death." This is to know what to do and what the problem is. Here we have heart disease, the greatest cause of death in Cattaraugus County. These are the figures for 1925, causing 196 deaths: cerebral hemorrhage, 90, accidents, 84, cancer, 84, nephritis, 75, premature births, 70, pneumonia, 61, tuberculosis, getting rather low, 35, arterial diseases, 31, diabetes, 19, other causes, 177.

Next, "Maternal Mortality." That is a chart showing the number of deaths of mothers per thousand births. It went up high in 1918 because the influenza epidemic caused deaths of mothers as well as of other people and caused more deaths of mothers because they were in a weakened condition caused by the birth of the child. The number runs along in 1920, 1921, 1922, 1923, up to six deaths per thousand births, then dropping down in 1924 and

1925 to four deaths in Cattaraugus County, making a rate of 2.7 deaths per thousand births. Of every thousand births in Cattaraugus County, less than three mothers die.

Next the "Still Births." Here we have figures showing the still birth rate of babies born dead per thousand total births. Here you see the figure running up, the total births of 1,544, to fourteen or fifteen hundred a year. The still births in 1915, 67, 54, 62, 63, 58, 60, 74, 66, and then in the last three years, 44, 50, 37. Thirty-seven still births, a rate of 25.2 still births per thousand births in Cattaraugus County, compared with forty-one still births in New York State. The still rate has dropped, the mortality rate has dropped.

Now, the infant mortality and infant deaths. Infant mortality rate is a rate which we use quite commonly in public health work, the number of children who die under one year of each per thousand births. The number of children who die under one year, of each per thousand deaths. That is, we have per thousand live births in 1925, 1,399 live births, and we had 103 children dying during that year a rate of 74 per thousand. Now, if you go back to 1915, the infant mortality rate was 88, 74, 82, 94, 81, 83, 79, 95, 93—practically the same thing up to and including 1923, and then in 1924 a drop to 65, a saving between 1923 and 1924, if you will, of approximately twenty-eight deaths, twenty-eight babies saved that

year A little higher the next year, but still low That is a statistical fact The rates have been going along about usual, and for some reason during the last two years they have been much lower

Then we study to find out where those occurred and we find when these deaths occur We find that of the children who died in 1925, thirty-five out of one hundred and three died less than one day of age—34 per cent of all the children who died in 1925, died under one day of age Twenty-six children, or 25 per cent of the total died from one day to one week Thirteen children, or 13 per cent of the total, died from one week to one month Now to find out how many died during the first month, you must add together the thirty-five and the twenty-six and the thirteen, and it gives you a figure of about eighty-one or eighty-two, thereabouts, more than three-quarters of the children, or about three-quarters of the children dying during the first month What does that mean? We go back to our medical training and we say if the children die early it probably means the need of more pre-natal care, need of better nursing care and other health care during child birth, and possibly better feeding care on the part of the mothers We must make further studies of that

The causes are shown below of the same one hundred and three premature birth, malformed, weak, that is what we call congenital debility, which means a weak child at birth who cannot carry through, and other cases which you see very clearly there

Now, the Tuberculosis Chart Here we have the tuberculosis deaths The first column represents the number of deaths from 1911 to 1920, the second representing the number of deaths in 1921, fifty-five deaths, the third, the number of deaths in 1922, fifty-three deaths, for 1923, fifty deaths, for 1924, fifty deaths, 1925, thirty-five deaths Notice that a drop in the one year of fifteen deaths, a drop of about one-third of the total deaths from tuberculosis That is a statistical fact That means something

During 1917, sixty-one cases of tuberculosis were reported The law says when a physician diagnoses a case as tuberculosis, it must be reported to the State Department of Health He must report it This shows the number of cases reported 61, 54, 81, 72, 73, 77, 85, and in 1924, 343, 1925 192—more cases being reported What does that mean? Does it mean you have a lot more tuberculosis than before? We say "No" because your deaths haven't increased It probably means a search is being made, that the nurses are going into this home and that home, saying, "You are under-weight", or "You are having a chronic fever and ought to

be examined" and sending those people to the physicians and the physicians are reporting the cases We study and say we ought to have at least three cases reported for every death

The important thing is that we have got more cases reported and no evidence of an increase of the disease

The next chart, "Accidental Deaths in Cattaraugus County" I think that is of interest to everybody Notice the accidental deaths in 1917, almost one hundred deaths, in 1918, 1919, 1920, 1921, the number of accidental deaths decreasing I don't know the cause Possibly the boys being away at the war, less people in industry, may be the reason We had quite a slump in industry The purple color represents automobile accidents, the green represents railroad accidents, and the yellow represents all other accidents Now, in 1923, 1924, there was a marked increase in accidents, and in 1925, the number of deaths about eighty-four, not an unusually important number and not as high as some years

There we haven't done very much as far as the Health Department goes We have done little to prevent accidents There is a real problem which we are tackling We can see where these accidents occur Some occur from the age zero to four, two deaths in males and two in females—probably children falling against the stove and things of that sort Deaths, five to nineteen, four in males and four in females The death-rate of children in cities is apt to be much higher The dangers to children from five to nineteen in cities are greater

Now, then, you have seen all of these You have noticed the slight decrease in the annual death-rate You have noticed a decrease in the maternal death-rate You have noticed less still births You have noticed that the infant mortality rate is decreasing, that deaths from tuberculosis are decreasing All those things are favorable things All those things we want to bring about We know from long experience that they may be caused by better health work They may be caused, however, by some other things and it is not easy to say now definitely that those things are caused by health work and by nothing else Economic causes, men have better food, men have more leisure, possibly they are not pressed as hard at work, but if you look at these charts and see the drop in deaths, the drop in infant mortality, you are pretty apt to say, like the man did that was kicked out of the dance hall, "There is something going on in Cattaraugus County," and it is a reasonable thing if something is going on in Cattaraugus County that this health work is doing a good part of it

TUBERCULOSIS WORK

By WILLIAM C JENSEN, M.D.,
OLEAN, N. Y.

DIRECTOR, DIVISION OF TUBERCULOSIS, CATTARAUGUS COUNTY HEALTH DEPARTMENT

THE first organized effort in tuberculosis control in Cattaraugus County started in 1908 in the organization of the voluntary Cattaraugus County Tuberculosis Association which confined its efforts really to two projects. One was creating sentiment toward the establishment of Rocky Crest Sanitarium, the other was the treatment and selection of advanced cases. You all recall about that time we thought the solution was to take care of the advanced case and forget the rest. Unfortunately, this organization was short-lived, but the work went on because the next year the Olean Anti-Tuberculosis Association was organized and is still very much in existence. It carried on in the same way, emphasizing the Sanitarium for the open advanced cases.

In 1910, the first full year of operation of the Olean Anti-Tuberculosis Association, the huge sum of \$683.32 was spent for tuberculosis work in Cattaraugus County. In 1912, the next real step was the organization of a Health Camp. About that you have heard and I will say nothing any more than I do believe it is one of the best projects carried out in this country. In 1916, the work of the Olean Anti-Tuberculosis Association that was really started by the old defunct County Association, bore fruit in the establishment and opening of Rocky Crest Sanitarium with twenty-two patients. In 1920, the Cattaraugus County Public Health and Tuberculosis Association was organized. The same people in the first organization were back of the second organization, with many recruits. In 1918, the County added to their staff a county tuberculosis nurse. In 1922, the county was spending \$1.37 per capita for health work. If you have followed the charts prepared by the State Charities Aid, you can compare that with the case today.

In 1921, there were one hundred and thirty-five cases examined in the county, exclusive of Olean, and one hundred and eleven examined in Olean. That gives you the scope of the work that was being carried on. The total number of clinics was forty-five in Olean, and only seven in the county at large. In 1923, periodic clinics were started by the late Dr. Bartlett, and during that year there were four hundred and eighty-four people examined, five hundred and eleven examinations, and forty-seven cases of tuberculosis were found. The next year the first real year, the examinations increased to two thousand, eight hundred and ninety-nine, the number of cases found, to two hundred and seventy-eight. The next year, 1925, the third year of the demonstration, the number increased to three thousand, one

hundred and two examinations, and two hundred and fifty-eight cases.

The average number of deaths in Cattaraugus County from tuberculosis, exclusive of non-residents in Harrietsburg, has been around fifty. This chart shows you the average of about forty-nine for that decade. For the years previous to the demonstration, fifty-five and fifty-three. The first year of the demonstration, the mortality was fifty, the second year, twenty-four, last year, thirty-five, or a rate of about 47 per 100,000 population.

The number of cases reported in Cattaraugus County from 1917 on is shown in this chart 61, 54, 81, 72, 73. The year before the demonstration, the number of cases reported was 77. The first year of the demonstration, the number increased to 85, the second year, the number increased to 343, and in the third year of the demonstration, it dropped to 192. The reason, of course, is obvious. That year was the first year of intensive case finding. It was natural that we would locate a lot of unreported cases, and if we did a good job that year, the next year we would have some decline. This year I am sure we will have about the same.

This chart illustrates the progress of the diagnostic clinics. In the first year of the demonstration, the first clinic was held in Franklinville in March, by the late Dr. Bartlett. Later ones were conducted by Dr. Wang and later by Dr. Douglass. That year, nineteen clinics were conducted. That is exclusive of a few conducted by the Olean Anti-Tuberculosis Association previous to March. There were only four or five. The first year of the demonstration, the number increased to one hundred and forty-four. By that time the county had been organized into six health districts. Besides that, there were a few industrial clinics that year.

The next year the number increased to one hundred and seventy-four. The reason for that is purely because of special work done in the schools of Olean in the underweight survey which I will describe later, and on the Indian Reservation. The physical examinations increased from five hundred and eleven the first year of the demonstration, to two thousand, nine hundred and eighty-eight the second year, and three thousand, one hundred and two the third year. The total number of persons examined, four hundred and eighty-four the first year, two thousand nine hundred and eighteen the second year, and the grand total at the end of the third year was five thousand, three hundred and forty-six.

The number of tuberculosis cases diagnosed increased from forty-seven the first year to two hundred and seventy-eight the second year, decreased to two hundred and fifty-eight the third year, and this year I expect we will have another slight decrease. It is only natural that we should

X-ray examinations were made by a portable X-ray that can be taken to all the stations and into the homes. The first year, one hundred and ninety-three patients were X-rayed, the second year, nine hundred and fifty-six, and the third year, six hundred and eight. The examinations increased, but the X-ray examinations decreased. At first, we would X-ray anybody that the doctors wanted us to, or if they themselves asked. Besides that, we X-rayed advanced active cases. We changed our policy and discontinued X-raying the perfectly obvious positive cases and cases we were absolutely sure that were inactive. That explains entirely this decrease.

The chief reason for the success of our tuberculosis work is, no doubt, the nursing service. At first, practically all of our cases were gotten into the clinics, came into the clinics because of the nurses. They were ferreting out the suspects and practically every case came from that source. In 1923, the nurses made one thousand and three visits in the interests of tuberculosis patients. In the second year, they still maintained their case-finding interest and the number of visits increased to one thousand, three hundred and sixty. The total number of cases increased from two hundred and thirty-seven in 1922 to three hundred and eight this year (indicating) to four hundred and sixty-seven in 1924, and in 1925, to five hundred and thirty-eight.

The next year of the demonstration we began to notice that the doctors began to send more and more cases. They always did send a few, but last year a total of eighteen per cent of all cases were referred by the doctors. This year it is already forty, referred by the doctors.

In 1925, the nurses made fifteen hundred and ninety-two home visits to tuberculosis patients, this year the nurses made some fourteen hundred home visits, which gives a total of three thousand visits to homes of tuberculous patients.

This chart shows the cases by health districts. As you notice Olean, with the largest population, has twice as many tuberculous patients as any other district, 221. Salamanca, the second largest city has about one-half, 112, and so on. The curious thing is the fact that the rate in this county where conditions are about the same, with the exception of Salamanca and Olean, the rate is so much higher in some districts, chiefly Cattaraugus

and Randolph, than the other rate, also, that the lowest rate is the second city, Salamanca, 83.884, practically the same rate as our two smallest districts. I was asked what the reason was. I know of no other reason except that the nurses of those districts having less people to work with had done a better case-finding job.

The tuberculosis work in this county is based first on the finding of cases, second, on their classification, and third, supervision and treatment. In order to carry out such a program, we have organized the following services. First, the case-finding clinic service which I have described, second, the consultation service available at all times to all physicians, including the portable X-ray service wherever there is proper electricity. Our machine operates on sixty-cycle. Occasionally we go into a home with twenty-five cycle and we are of no service. Third, school medical service. In school medical service, we attempt to examine all school children that are more than ten per cent underweight, or patients referred by the school nurses, regardless, all patients referred by the school principals and teachers, regardless, all patients we feel who have chronic symptoms, and we are going to examine all habitual absentees.

Treatment—Insofar as available, we recommend sanitarium treatment for all active cases. Rocky Crest Sanitarium, started in 1916, with a capacity of twenty-two. In 1918, it had an authorized capacity of twenty-six, with actual patient days of six thousand, nine hundred and twenty-eight out of a possible number of patient days, nine thousand, four hundred and ninety. In 1923, the first year of the demonstration, the capacity was increased to forty, patient days possible, fourteen thousand, six hundred, and actual patient days, thirteen thousand, three hundred and ninety-two. It shows a considerably better utilization of the sanitarium than in the early days. In 1925, the capacity was increased to fifty beds, the possible patient days to fourteen thousand, nine hundred, and utilization of actual patient days, fourteen thousand, seven hundred and eight. That shows we do not forget sanitarium treatment.

We have already examined over three thousand, two hundred children in Cattaraugus County. Nineteen hundred of those children have been examined in the clinics, thirteen hundred have been examined in the schools of Cattaraugus County, seven hundred and thirty-six being underweight.

Outside of the finding of a general nature the findings in tuberculosis are very, very outstanding. You will notice in the children from ten to fourteen per cent underweight, five hundred. Eighteen cases of tuberculosis were

found, or 36, which is just about the number of cases of tuberculosis you will find in that number of people at large, if you include all stages and types. Percentage of underweight in children, fifteen to nineteen, one hundred and eighty-one. Nineteen had manifest tuberculosis, 88 per cent were definitely tuberculous. As the percentage of underweight increased, twenty to twenty-four, the number decreased, but the percentage of tuberculosis increased to approximately 21. We had twelve children, 25 per cent or more underweight. One was 31 per cent. Out of this twelve, three were diagnosed tuberculous. We found one which we diagnosed "suspect." Those cases are more than all the advanced active cases found during the entire Framingham Demonstration. I have all those three films and later on I will show them.

One of the results of our tuberculosis work has been an increased admission at Rocky Crest Sanitarium in the number of cases treated, and a slight decrease in deaths. As a matter of fact, we can forget that. If you will notice there was in 1917, thirty-nine admissions. Last year, we had eighty-three admissions, again emphasizing the fact we do not neglect sanitarium treatment.

Next. Another very significant fact in the Sanitarium is the fact that previous to the Demonstration over forty per cent of all cases were active and advanced. Last year, the percentage of active and advanced cases was fifteen—quite a decided drop. Likewise, the percentage of cases at Rocky Crest before the Demonstration was running from twelve to fifteen. Last year it was forty-eight, showing a decided increase in the curable cases of tuberculosis. We cannot do much for the advanced cases other than make them comfortable. The early case we can do a lot for, and that is what we are concentrating upon.

The other phase of treatment is our home treatment plan. There are some in this audience who are very much interested in that because one gentleman told me he didn't believe in it. I invite him to discuss it. However, our

home treatment plan is based on the fact that you cannot treat all cases of tuberculosis in a sanitarium for the simple reason there are not enough beds, secondly, if you did have enough beds, a vast majority of T B patients will not go to a sanitarium. What are you going to do with that large group, certainly not forget them. Therefore, we have divided all our cases into three groups. First, all cases that live up to the requirements of Dr Paterson's sanitarium home treatment plan which you are all familiar with. Briefly, they are these. Home conditions satisfactory, financial conditions satisfactory, cooperative, intelligent, some member of the family intelligent, and a preliminary period of education, instruction, treatment in the hygiene of tuberculosis in the sanitarium, these cases preferably to be early stages and may be moderately advanced.

Our second group is that very same group, with the exception that they never went to a sanitarium, refused to go to a sanitarium. Our third group is all-inclusive—every other case, even the incorrigible. They are even the incorrigible for we do not believe we should forget the incorrigible, even if we can get only a word in occasionally. Naturally, in this group the treatment varies. It includes quite a few advanced cases, hopeless prognosis, requiring considerable bedside care of our nurses, includes many arrested cases who refuse to believe the diagnosis, who frankly tell us we are wrong. We neglect nobody. Those arrested cases we intend to follow up for a period of three or four years to determine, if possible, a survey of reoccurrence of activity in these arrested cases, following their usual occupations.

In the sanitarium home treatment group I, we have about forty—very small—for the simple reason that the vast majority of cases when discharged from the sanitarium are not fit to go into Group I. We put them into Group III. We have a follow-up record forwarded to us from the sanitarium in which it is stated frankly by the superintendent of the sanitarium whether or not he believes that patient will follow out sanitarium home treatment.

THE NUTRITIONAL WORK IN CATTARAUGUS COUNTY

By JOHN C GEBHART, New York
SECRETARY ADVISORY COMMITTEE ON NUTRITION

THE nutrition program is one of the most recent developments in the field of public health. About ten years ago Dr Emerson of Boston conceived the idea of what he called the nutrition class method. He had been working in the Massachusetts General Hospital with children, where there were a number of children who were not tuberculous, who were not cardiacs, who had no observable physical de-

fect, and yet who weren't doing well. They were under-weight, pale and anaemic, and he found that the remedy for treating that condition was not the giving of medicine, but getting these groups of children together in what he called nutrition classes and having the mothers attend them also. He worked out a very interesting method of teaching health and nutrition to those children, emphasizing the

proper means and kind of food, having the children make out records for every day in the week of exactly what they ate, what time they went to bed, and their habits of play. These children then met together once a week and checked up on their health habits and on their gains in weight. That method attracted a great deal of attention. It came to New York City and Bellevue Hospital experimented with it a while. The Association for Improving the Condition of the Poor became interested, and introduced the method in the Mulberry district. It spread very rapidly throughout the country.

When the Milbank Fund Foundation appointed a Committee on Nutrition it charged that Committee with the responsibility of considering the question of the advisability of a nutrition program for this demonstration.

We are coming more and more to realize in our health education work that the schools can be really a great factor in putting over a program of health education. Some of us believe it is just as much the business of the schools to teach children to be well as to read and write and to do figures. And we believe that if the teachers are given the proper training, particularly if there are individuals, voluntary organizations, and others who can stimulate them and give them fresh material, that a great deal of health education work can be done much more effectively through the regular channels of the school organization. It was recommended therefore that the nutrition worker should use the schools in every possible way.

The first step in the nutrition program was to make a study of just what the dietaries of the families are who are living in this county. That suggestion wasn't received so cordially at first because we had visions of a number of people going through the neighborhood and asking all sorts of questions and it might not lead to much. Instead of bringing a host of investigators into the county and asking a lot of seemingly impertinent questions, the plan was to use the people of these home demonstration groups to collect the necessary data in their own homes. These mothers had been working on various problems and they were intelligent about it and glad to cooperate.

When it came to the selection of the schedule to be made out, again we took something that had already been in use, the score card worked out by Cornell University and in use in the families in the district. The various families were asked to cooperate and we got at first one hundred families who took part in this interesting check-up one week. They recorded the food purchased and eaten by all the members of the family, and an accurate record of the quantities consumed during one typical

week was provided. Then these cards were tabulated by people who are expert in dealing with that sort of material. That study has just been completed and will soon be ready for publication.

I want to point out that we divided the people of the county into three different groups—those living in towns or cities, those living in small villages, and those living in rural districts. We found some very interesting variations in the dietary of those groups, and those variations discovered in the study have already influenced the work we are doing. For example, in the rural districts it was rather surprising to find there were less green vegetables used than in the villages. Immediately that pointed out what we needed to do with people living in the country districts, viz. simply show them how by planting the proper kind of vegetables, and using a bit of ground around the house, they could easily raise a supply of vegetables, thus showing them how, without any additional expense, they could improve their dietaries.

Again, another remedy which immediately suggested itself was the proper storage of food during the winter. A great many farmers raise quite a quantity of vegetables during the summer, but because they haven't developed proper storage methods, vegetables are wasted. It was a simple matter to show the farmers how by the expenditure of a very small amount of money, storage facilities could be provided. Steps were immediately taken through the county fairs, and in other ways, to show the people how more vegetables could be raised and stored for winter use.

A plan has been agreed upon whereby the nutrition worker should give ten days a month to work in the schools. Miss Odell has been dealing with teachers in training. I believe it is the custom for certain teachers to take training while teaching in methods of pedagogy under the supervision of the State Department of Education. Those teachers who are going to be teaching the children of the county in the next twenty-five years have thus been reached and have become interested in the work we are doing and moreover have been taught methods by which they can get this knowledge over to the children and how the subject matter of nutrition and health can be worked in with the other things they are required to teach. There is no reason why arithmetic, English and other things cannot be taught through the medium of health education as well as any other subject matter.

Miss Odell has prepared a series of lessons and lectures which have become part of the training of the teachers of the county. That I think is going to have a very far-reaching

effect. It is fundamental work and it will last for a number of years.

An important part of nutrition work has been the giving of health talks and lessons to the children themselves. We realize the more fundamental thing is probably to reach the teachers and train them so they can teach health, but at the same time in order to give the teachers an object lesson, a certain amount of educational work has been done directly with the children. For example, in the past year in this way seventy-seven schools in this county have been reached. During this year, ninety-six health talks have been given.

Another very interesting feature of the work has been the development of the school lunch program. A school lunch program in the rural school district is something very different and more important than in an urban district. Many children come great distances and it is a very simple matter to have them bring vegetables, milk, and other articles of food, and then use the preparation of these foods as a means of teaching the proper selection of food.

The teacher can be used also in helping to prepare the lunch, which they eat together. The school lunch has become a very valuable means of instructing the children in the essentials of nutrition.

In the past year and a half approximately one hundred and fifty school lunches have been started largely as a result of this nutrition program.

The nutrition worker now gives four days a month to Home Bureau work. The Home Bureaus have two definite projects: they attempt to get the mothers interested in clothing and household economy, and also in nutrition. Nutrition has been made a major project upon which these various groups are now working. In that way the workers are reaching the mothers and getting them interested in the proper diet of the children. This work is going along very successfully and having far-reaching effect.

Another very important part of the work of the Nutrition Division is the co-operation with the Nursing Division. As I have said, it was the judgment of the Committee that the nutrition work should permeate all the things being done in the area and we felt that was certainly true in a program which provides for a generalized nursing scheme. Therefore eight days out of the month of the nutrition worker's time have been given to working with the trained nurses who serve different parts of the area, largely as a consulting adviser on definite problems that come up, for example, dealing with the diet of the expectant mother. The nutrition worker makes suggestions for problem cases indicating what alterations in

the diet are needed. These particular cases are then used for discussions and for teaching methods, so that a great deal of this information and the manner of dealing effectively with the nutrition problem is being taken over by the nurses themselves, so that they in their contacts with the sick and with their groups and committees are tending to emphasize the same point of view as the nutrition worker.

There are besides various miscellaneous groups with which the nutrition worker is concerned, for example, the Parent-Teachers Associations. Many of the Schools now have organizations of the parents. These are called Parents Associations and Parent-Teachers Associations. The nutrition worker spends a good deal of her time in meeting with these groups, in holding informal discussion, and in giving demonstrations in the proper selection of food. Granges, Federations, and other community and neighborhood groups are also used as vehicles for carrying on this important work.

I want to give you a few of the figures which are illustrative of the volume of the work. For example, in the first six months of 1924, five hundred and eighty persons were reached through the Home Bureau, in 1925, six hundred and eighty, and in the first three months of 1926, four hundred and ninety. In the two years, one thousand, seven hundred and fifty persons have been reached through Home Bureau service.

Again, the work done in the school has grown in volume. In the first six months, ten hundred and forty children were reached in the schools. In the year following, two thousand, six hundred and thirty, and the first five months of 1926, one thousand, three hundred and sixty-four—a total of five thousand and thirty-four children reached since the nutrition work was first undertaken.

Work was also done with individual cases, largely in co-operation with the nurses, cases of constipation, cases of arranging the diet of expectant mothers, cases requiring patients with diabetes, and other illnesses, and extremely underweight and mal-nourished children. There were one hundred and twenty cases in the first six months. In the year following, there were two hundred and forty, and in the first three months of this year, one hundred and twenty-five, a total of four hundred and eighty-five.

In the miscellaneous group, nine hundred and twenty-five individuals were carried since work was started.

During the past year, there were one hundred and six meetings with home bureau groups, and a total of one thousand eight hundred and twenty people reached. Six hundred and nineteen people were interviewed.

outside of meetings, nineteen community nutrition meals were prepared for a total of six hundred and sixteen persons

Fifteen exhibits of various kinds were arranged and displayed in various parts of the county

As far as results are concerned, the records show there have been one thousand, three hundred and thirty-four definite changes brought about in the diet of individuals, one hundred and thirty-six children are found to be in better health as a result of the right food selection

I think that from this brief outline you will perhaps get some idea of what we are trying to do through the nutrition service. Of course, the question will be immediately asked by

some, "Do you believe this work is fundamental enough to recommend in other counties?" My experience with this question has gone back over a number of years and I think there is no question but what a rural county, or an urban district of any size, cannot claim to have a complete and well rounded health program if it does not make some provision for expert guidance along the lines of nutrition. That doesn't mean we must have an elaborate system or a large staff of highly trained individuals, but that there must be someone available for every community who is an expert in this question and who is intelligent about getting that knowledge over to the various groups in the community

HOW TO CONDUCT A CAMPAIGN FOR A COUNTY HEALTH DEPARTMENT

By GEORGE J. NELBACH, New York
ASSISTANT SECRETARY STATE CHARITIES AID ASSOCIATION

FOR those here in this room desiring to have their home county get some of the things which you see of value here, including the county health department, a more intensive case-finding campaign for tuberculosis, a more adequate staff of public health nurses, let me suggest how to go about it. This is based on experience that covers now some eighteen years of campaigning, of promoting, of organizing for more health work in our State.

The first step is naturally to get your own county association to favor it. That might mean their doing it on your say so, on your reporting back to them what you have seen and heard here, on your giving them literature about the Demonstration which you can obtain from our office. If they are not convinced, then our recommendation is to have a committee appointed to come out here and see as you have seen the work at first hand.

Now, granted that they are interested, what is the next step? Why, of course, it is to turn to the public authorities, the county board of supervisors, and tell them what you want to have done. Now they won't do it right away, because they represent different parts of the county. They are responsive to public opinion and as there is no public opinion about these things yet in your county, they won't take a decisive or affirmative action. It will be up to you through your group to create this favorable public opinion that will justify them, as the appropriators of public moneys, to make the appropriations for this kind of service. Go to them first—ask them to appoint a committee of their number to investigate the need of the thing, the things that you want to have done. That will mean a committee of three or

five persons. Then go to that committee and ask them to come to Cattaraugus County and see for themselves what is going on here. While they are doing that, your next step will be to bring home to the people through the channels of publicity and education, like the newspaper, its editorial columns, its news columns, its cartoon services, its special feature articles, the facts about Cattaraugus. It will mean talking to the ministers and other leaders and molders of public opinion, the facts about Cattaraugus and persuading them to join in this chorus of public approbation and encouragement for the establishment in your home county of what Cattaraugus is doing.

You can bank upon the whole-hearted support and assistance of your State Committee. We have had training in a number of ways and been through a number of campaigns in work of this precise nature. A number of us have gone through campaigns as intensive as those involving referendum campaigns, getting the people to vote in an election booth on a definite proposition involving the appropriation of public funds, and whatever the experience and service that we can bring to bear upon helping you is at your command.

In conclusion, let me on behalf of our State Committee express appreciation to you and to your county organizations for having you come here and see this enterprise and to express appreciation to the boards of supervisors who sent their delegates, and to the various State Departments for sending their representatives, and, lastly, I want to express a real personal word of appreciation to the various men and women here in Cattaraugus County who have helped so effectively in making this meeting of our State Committee a success.

THE SPIRITUAL VALUE OF THE DEMONSTRATION

By JOHN A. KINGSBURY, New York
SECRETARY, MILBANK MEMORIAL FUND

What are the achievements of this past quarter century which are less tangible but none the less real? What the spiritual achievements? Insulin for diabetes, vaccination against typhoid, toxin anti-toxin for diphtheria, education in right conduct which prevents tuberculosis and education in moral habits which will prevent syphilis and gonorrhea—those methods and those things have all been discovered or developed in this last quarter century

Think of it, ladies and gentlemen! I wish it were possible for us to really realize what that means in spiritual values, but just to put it in the merest material terms it means that in this country of ours during the past quarter of century, death on the average has been postponed six years. To mention only two of the spiritual enrichments of life resulting measure what that means in misery prevented, in sorrow that has not been endured

That is what has happened—just to give you a glimpse of it, just to take a glimpse at life's enrichment due to the scientific achievement of the past quarter century. That is what the Norge symbolizes to me. Oh, if we could

only make Cattaraugus County a symbol, a symbol of the spiritual values that will come to those who practice health, in spiritual values that are within the grasp of the people of this country, of this State, and of this Nation, of this world. We ought to do it, and we will do it. It is being done today. Witness the distinguished guests that have come here from all over the state, from other states, and other nations. That is already indicative of the significance of what is going on in Cattaraugus County.

Sir Arthur Newsholme said many things in his delightful way, which we shall never forget, which we shall carry away, which we shall print in our programs from year to year as slogans to remind us of our duty and of this day. Paraphrasing, I wonder if this wouldn't be a good slogan, "Make Cattaraugus Contagious." Let's quit saying, "How-do-you-do?" when we meet each other. Let's say, not in a jesting way, but looking into each others eyes, man to man, and woman to woman, "How is your conduct?" I am afraid some of us would wither under such searching gaze.

IMPRESSIONS OF THE WORK

By C W MUNGER, M.D.
DIRECTOR, GRASSLANDS HOSPITAL, WESTCHESTER COUNTY N. Y.

I HAVE been absorbing new ideas and new information so rapidly in the past three days I think it is premature for me to try to give you any accurate impressions. I think I have got to take all this literature home, digest it, and study it, and then perhaps write out a report that may be of some value. At any rate, my prediction is I am going to be able to tell a good deal when I get back to Westchester.

Our County of Westchester has a reputation among some sections of spending money rather prodigally and doing things in public health on rather a large scale. I feel, however, that we have a great deal to learn from this demonstration. We have approximately six times the population that Cattaraugus County has. We have one hundred and ten nurses, divided up among twenty-four organizations. A county nurse, who is also part of my department, has the pleasant duty of correlating the work of those twenty-four nurses' organizations. She has got a man's size job. It will never be done, of course, under the present arrangement.

The work that has been accomplished I feel

is quite phenomenal, and it is a work that I can join this procession that one of the speakers spoke of, of compliment. I think it is a work all of us in this State are going to appreciate very much. I have been particularly impressed by the interest shown by the local communities.

The most interesting and touching thing to me in all this program has been what these people in the local communities have said about the Health Demonstration. If you are putting it over to them, you are getting it across. That is the problem we are all going to have—to get it over to the people. If we can do that, we will have all the money and appropriations for health work that we need.

It is going to give me great pleasure to go back to Westchester and report in a rather dual capacity to the Department of Public Welfare about what it may be able to do to the Charter Committee, which is now trying to draft another charter, and report to the County Committee on Tuberculosis and Public Health, of the very wonderful work which Cattaraugus is doing.

IMPRESSIONS OF THE WORK

By ARTHUR W TOWNE,

DIRECTOR ONONDAGA HEALTH ASSOCIATION, SYRACUSE, N Y

I WANT to speak for just a few minutes from the standpoint of other counties. We represent various places where Cattaraugus County standards are not prevailing, where the Cattaraugus County machinery has not been set up,, and I think the question uppermost in our mind is not as to whether it is going to be desirable, but as to whether it is going to be possible for us to induce local authorities to set up such machinery and maintain standards on the high levels that prevail here in Cattaraugus County.

I want to ask one or two questions from the standpoint of other places. The first question is, "Do the people in my county—each of you can ask of your own people—have a consciousness of the public health problem?"

Sir Arthur Newsholme is quoted in a little pamphlet which we in Syracuse published on the occasion of his visit last week. One of the quotations is "Public health work, whether voluntary or official, is dependent on public opinion, and instruction of the public health matters must form a large part of every public health program."

I believe one of our first duties is to educate our public and instill an appreciation of the importance of public health.

In our counties, what do we think of when we talk about public health? In one county it may be tuberculosis work. "Are you doing public health work here?" "Yes, we have a sanitarium and doing public health work." Another county we ask them, and yes they are doing it there, taking care of the babies, doing pre-natal work and infancy work, and there the story stops.

Are they doing venereal disease work? Are they doing school nursing? Are they getting into industrial hygiene? Are they carrying on mental hygiene education? That is something they haven't thought of.

In my county we are not thinking of public health work in the rural parts of the county in a comprehensive way. Each individual has grown a pair of lungs, he has got legs, he has adenoids and tonsils, they may get diseased, he has got something in his head that may get out of gear. So we have lots of things. People all over the State are the same kind of individuals as in Cattaraugus County, and in order to protect the health, we have to have a comprehensive program.

Cattaraugus County has statistical interpre-

tation of the facts. These very highly colored and harmoniously colored and beautiful charts are based on accurate record keeping, an accurate knowledge of just what the facts are. It costs money to make those charts. It costs money to keep those records. The public health nurse cannot spend her time keeping records. Perhaps no county in the State can keep the adequate, complete, illuminating records we have in Cattaraugus County. Yet all of us have access to some information. We can write to Albany, or go to our local agencies and get some information and put it down in black and white. If we cannot make graphs and charts, we can get someone to do it. Mr. Nelbach and Dr. Burnham will be glad to help, I am sure.

That is going to be effective in translating the facts to the boards of supervisors and to the representative citizens and to the newspaper editors, getting our facts in useable shape, because, after all, whatever we get out of a conference like this is useful only insofar as it is useable, and we have to be able to find our facts.

This county has over two hundred school districts. My county has five hundred school districts. Each of those is a little health unit. Then we have lots of towns. They are health units. We have villages. They are health units. It is impossible for the health official, be it a doctor, nurse, or what not, in any one unit of that county to carry on an intelligent, effective, comprehensive work. In the first place, no place in the State, unless it be that rich county of Westchester or Suffolk County, can afford to pay the salary and command the services, we cannot get the skill, we cannot get the time. People are crossing lines all the time. Children live in this town and go to school in this next town. A man works in this town and lives in this town. Our germs and all kinds of things are carried back and forth. It is a problem that can be dealt with intelligently only by using a larger area, at least the county as the unit.

When we go back to our home towns and counties, the thing we want to strike for and strike for hard is a county organization. It has got to be a county plan and county unit, and we have got to have adequately paid workers, beginning with the county health officer, and then having such number of public health nurses as may be necessary, and all the other accessories.

IMPRESSIONS OF THE WORK

BY HUGO A. BROWN, EXECUTIVE SECRETARY, BUFFALO TUBERCULOSIS ASSOCIATION

THE people of Cattaraugus are to be congratulated in having the facilities for the expert care and treatment of all of the people in the community

Public health work brings us down to the question of how many nurses we can afford to put in the field. That is the impression I have gained here, that all the work which has been accomplished, including, of course, the experts, has done because of the large field of nursing which has been placed in this community.

Now, those of us who have been interested, especially in tuberculosis and public health work, know that that is the fact. The various clinics that we have been able to hold in the community where people never knew what a clinic was, in fact, some people wouldn't know what a physician was or a nurse—we have been able to go in the small towns and pick up ten or fifteen. We could only do that by sending a nurse in the community to work out the cases.

I was very much interested in the statement that Dr. Jensen made when he said during the course of his remarks that all of the examinations for diagnosis, and all the active cases are referred to sanitariums for treatment. I was under the impression, and it has gone out quite broadly throughout the country, that home treatment is the prevailing rule and recommendation. I was glad to be corrected on that and have my impression changed, that all active cases are referred to the sanitarium. If you cannot get them to go, home treatment is resorted to. We have done that a number of years.

I was also very much impressed when the specific instance was cited that one of the young ladies who was examined here was formerly a resident of Buffalo and had been examined by an expert in tuberculosis, and she came to Cattaraugus County to be diagnosed and treated. Now I agree with that. That has been one of our problems. The difficulty has been to get people to an expert, and to draw the line as to whom we consider expert enough to diagnose a case of T. B. We have a lot of quacks in Buffalo, unfortunately, and we have a lot of people who believe in medicine and who will go to these quacks, because we are not in a position to tell them whom to go to. This Demonstration proves through the publicity bureau you can educate the people. We have got a big job on our hands.

If you could take the physicians, if you could use enough influence and the entire organization get together through a State Committee, and take some of this expert advice we are receiving here, and which we all acknowledge is very good, and organize that into a speakers' bureau whereby all counties, for instance, Erie County, I am sure in saying if we could have a committee of three or four experts, who have the knowledge of Cattaraugus at their elbows, and who could appear before the finance committees of my supervisors, there would be no difficulty in going before that board of supervisors and asking for an appropriation of one hundred thousand to put twenty nurses in the field of the County of Erie outside the City of Buffalo, and we would receive it, and I believe a great many other communities would do the same thing.

THE DEMONSTRATION FROM A PASTOR'S POINT OF VIEW

By REV. MR. MICHAELSON, Ellicottville, N. Y.

I AM impressed in our own locality with the pleasant and effective and earnest personality of our local nurses. To have them go into the homes, to offer kindly and wise advice in the practical problems that face mothers and parents, is a real joy and a real privilege and a real pleasure, and I count us fortunate to have them in our community to help us out.

As I go about my ministerial work in the county, particularly in this district, I go even into the district schools, and I notice the nutrition posters put up on the walls for the instruction of children. I have noticed particularly one poster. It has a large potato with its eyes wide open and the hand upstretched, going hand in hand with celery and lettuce and cabbage heads. I suppose

the suggestion is that you and I ought to eat more leaves and green stuff.

I am heartily in favor of the nutrition proposition and I am quite enthusiastic about eating leaves and grasses, and so forth, but having learned to eat them, I wish some one would teach me to enjoy them.

I want to speak of the cooperation of the teachers. I have mentioned the charts I have seen in the schools and I find that the teachers throughout the county are much interested in the work and taking an active part in it. I have found also in my pastoral calling that the people living in the county in their own farm houses are increasingly interested in the work that our nurses are doing in this Health Demonstration.

is putting on. It is only this last week that I talked with a young mother. Her child was born not many weeks ago, and she said to me with deep earnestness, "I don't know what I would have done if it hadn't been for the help of the county nurses."

Now I know personally that there is no period in the life of any woman so sacred and so fraught with peril and so fraught with worth and importance as that period about the birth of a child, and a mother who is looking forward to bringing into this world a child and hoping he may grow into noble manhood or into noble womanhood is tremendously concerned that she shall be able to give to him or her the right health and right strength and right character, and is tremendously appreciative of the things the county nurses are helping to do in that particular field.

There is one instance brought to my attention of a remarkable piece of work the Health Demonstration is doing—the case of a girl who for nine years has been a cripple, trying to do her best with a club foot, trying her best and doing remarkably well, to care for a bed-ridden mother. Through the instrumentality of our nurses and the Health Demonstration she has been sent to New York once and again for treatment and has just come home able to walk even without crutches or a cane and pronounced well—a tremendously fine piece of work.

May I speak of the toxin anti-toxin treatment I listened a year or two years ago, to Dr. Armstrong speaking on toxin anti-toxin treatment and giving a stereopticon lecture. I became convinced that the toxin anti-toxin treatment was a good thing, and so during the past year we have had our own boy given that treatment. He has had all three treatments given to him and I have observed that in the receiving of that treatment that he has been caused practically no pain at all, not even a noticeable amount, and that he is just as well or in better health than before, and we have the added assurance that he shall be protected against that dread disease. There have been one hundred and seventy other children in this district who have received that treatment completely, and there are one hundred and forty now receiving it, and I hope every boy and girl can receive that treatment. I would not for the moment, now that I have seen it given, wish to have my child back and not have it given to him. If diphtheria should come into this community and that boy of ours should take it because I had been careless not to give that treatment, I could never face my fellow man nor my God again. I feel confident now that he is immune. I can thank the County Health organization, the Milbank Fund, our local physicians and heads of departments that I have had that privilege.

IMPRESSIONS OF THE DEMONSTRATION

By E. P. KOLB, M.D.,
SUPERINTENDENT, SUFFOLK COUNTY SANITORIUM

THE thing that has impressed me up here in Cattaraugus County is the extent of your program. We have done some work in Suffolk County fairly well, but it has been strictly anti-tuberculosis work, for we did not have the machinery or money to do a general public health work. The important work here is the fact that you are covering all phases of public health work and covering it very thoroughly.

The question was asked the other day whether a county could support this movement after the Milbank Fund was withdrawn. I would say the county boards of supervisors will appropriate money when the people want to have them appropriate it and when the value of the purpose has been demonstrated.

I think it has been proved here that if you have the cooperation of the medical profession and of the community at large you are bound to get what you want from the board of supervisors. You may not get as much money as you are spending now. I think after the Demonstration has been carried on for several years it won't require as much money to carry

on practically the same amount of work. I think Cattaraugus County will appropriate the money sufficient to carry on this work, and it will be an example which the rest of the State will follow.

CHAIRMAN NELBACH: Dr. Kolb, can you tell us in two minutes the extent of your case-finding work in Suffolk County? I think the figures you quoted to me on the train Monday night would be interesting to this group.

DR. KOLB: We started by getting a list of the deaths and reported cases for the period of 1914 to 1918, inclusive. That gave us over five hundred to start with. We attempted to get in contact with the known cases of tuberculosis. I must say we have never yet caught up on our program. With the new cases we have been finding, we have never reached contact with all the families in which there has been a case of tuberculosis. We have examined a pretty large percentage of them, I think. We have listed now six hundred and thirty cases that we classed as definitely cases of tuberculosis. Some of those cases in chil-

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For list of officers of County Medical Societies, see this JOURNAL, advertising page xv

THE RURAL HEALTH DEMONSTRATION IN CATTARAUGUS COUNTY

The rural health demonstration of Cattaraugus County was the subject of the annual meeting of the State and County Committees on Tuberculosis and Public Health of the State Charities Aid Association held on the first three days of June. The Medical Society of the State of New York and the State Department of Health were officially represented on the program.

The meeting was the occasion for a report of all phases of the work of the Cattaraugus County Department of Health, which is unique in that it is promoted largely by lay agencies. The plan is that after it has been in operation for five years, the governmental agencies shall take it over.

In addition to the County Health Depart-

ment, the local health boards continue to function as in other counties, but they are supervised by the County Health Officer.

There is no precedent by which to judge the demonstration. The future success of the work will depend very largely on the encouragement which the leaders of the County Public Health Organization give to the practicing physicians, and the meeting gave abundant evidence that the county health officials desire to meet this condition. While the demonstration is supported largely by outside agencies, there is every reason to believe that the county will continue the work after outside support has been withdrawn.

GEORGE M FISHER.

dren have hilum tuberculosis, but a majority of them are definitely pulmonary tuberculosis. In addition, we have listed about six hundred and sixty cases, I think, that we class as suspect or observation cases, cases in which the symptoms lead us to believe they are probably tuberculous, which have not been followed up further by X-ray.

CHAIRMAN NELBACH Tell us what is the average annual number of deaths from tuberculosis in your County, excluding the cases who died in the two State Hospitals for the Insane, so as to enable us to compute the ratio of living cases discovered to the average annual number of deaths?

DR. KOLB The actual number of deaths in 1925 was sixty-four. The population by the State Census was one hundred and forty-three thousand. That gives us a death rate per hundred thousand of 44.7. It gives us a ratio of known cases to each annual death from tuberculosis of about 10, and suspect-observation, about 10, that is, within a fraction of ten each.

When we started in 1918, the number of deaths, I think was 98, which gave us a death-

rate of about 94. The rate has been reduced in Suffolk County from 94 per hundred thousand, to 44.7 in 1925.

In our clinic work we are working with only the sanitarium staff, plus the aid of two nurses who are furnished to us by the County Tuberculosis Association, and we are holding about sixty clinics a year. In addition to that, I have a great many cases sent to me at the sanitarium by the physicians, or brought to me by the nurses for examination.

Last month, we held four clinics and examined ninety-eight patients. In addition to that, I have sixty-one cases that I saw, most of them at the sanitarium. I went out to a few with a physician in consultation.

A great deal of work can be done by the machinery that we already have in a great many counties, but it means a willingness to do hard work. Better work can be done if we have a better organization, and it would be a fine thing if all the counties could have an organization along the lines of the organization here, and I hope that it may be possible to have that time come. You are doing a wonderful piece of work here, there is no doubt about that.

A YEAR OF PROGRESS

By **STEPHEN A. DOUGLAS, M.D.**
HEALTH OFFICER, CATTARAUGUS COUNTY, N. Y.

During 1925 the growing program of the county health work has required a steadily increasing amount of time and effort on the part of the County Board of Health as a whole and of the individual members of the Board in particular. This has resulted in a closer, more intimate contact of the Board of members with the work being carried out in the field, which in turn has benefited the work and greatly strengthened the county health program.

Early in the year, at the request of the President of the County Board of Health, the Chairman of the Board of Supervisors appointed a Health Committee of five members, who were given the responsibility of keeping in touch with the official health work being carried out in the county. The members of this committee attend the meeting of the County Board of Health, receive all reports and are keeping closely in touch with the work. It is anticipated that this close relation to the two Boards will make for a wider understand-

ing of the health problems of the county, and a stronger official organization.

Fundamentally, the success of a health department depends first upon its program, secondly upon its personnel, and finally, upon its appropriations. The health officer is almost never limited in his activity by lack of adequate laws and regulations. It is with the plan, the people, and the pocketbook that the health officer must needs chiefly concern himself. For success in making a proper plan, in selecting and training proper personnel, and in securing adequate appropriations, it is obvious that the health officer must have not only intuition, energy and initiative, but real technical preparation for his difficult and vital task.

A sound program and plan of operation is a vital necessity in rural health administration, the importance of which cannot be over-emphasized, and just in so far as this principle is applied will real results definitely demonstrate themselves.

cial standing We are now in the stage of developing a public health service for the ignorant

The hygienic education of the people is a medical problem of the first magnitude, and its solution is not yet in sight It is practiced to only a slight extent by individual doctors, but there is a growing realization of the possibilities of its practice by organized medicine The medical education of the people was the burden of the inaugural address of Dr Wendell C Phillips as President of the American Medical Association, and it is the topic that is the most often discussed in medical societies

The most important subject in popular medical education is that of leading people to accept the discoveries of modern medicine and to seek their application in their daily lives Physicians already know how to prevent a majority of cases of illness and death, except those due to old age, and their success is brilliant in yellow fever, dysentery, typhoid fever, and a few other diseases Equal success could be attained in most other diseases if the people would give full cooperation and support to the doctors

Evolution of methods in public health resembles that in animals and plants Every conceivable method of public health work has been advocated and tried, but only the best survive Some leaders in public health have rode the foremost crest of every wave of medical progress, only to see it roll back and disappear as another futile wave appears Only the slowly rising tide of knowledge of both science and human nature is potent in public health

It was only natural that men of vision and financial means should organize societies for the purpose of applying modern public health methods and demonstrating their usefulness Nursing associations were formed and every conceivable method of work was tried Clinics for every ill, real and imaginary, were opened by boards of health and philanthropists, and even pastors of churches tried faith healing in cooperation with scientific doctors Various forms of the practice of medicine by the State were developed, and were tried and found wanting Doctors often opposed the measures and sometimes supported them There was evolution in violent action during the past two decades—but out of it all has come a survival of the fittest methods and a recognition of their proper place by both doctors and laymen

The American system of civic progress is that a new movement shall be promoted and demonstrated by an organization, and its value tested and proved before the government is asked to assume its operation A frequent source of misunderstanding regarding these experiments is that the plans are published widely and the impression is given that they are perfect to the last detail A demonstration always has features which are unsuccessful—in fact, one object of the demon-

stration is to detect the imperfect features and eliminate them before they are proposed But no one knows beforehand just which features will be successful and which will be impractical While publicity is necessary in order to secure the adoption of a plan of public health work, yet doctors and people are likely to compare the achievements with the rosy promises of sanguine promoters The word *demonstration* implies a perfection of plans and methods of work, and a final exhibition of their working based on previous trial However, most public health demonstrations are also experiments made with a purpose of perfecting details by actual trial under working conditions

It is also a source of misunderstanding that public health demonstrations are usually worked out by experts who deal with great matters of administration, and are not familiar with the details of dealing with sick individuals The family doctor has too often been neglected in laying out plans for public health work He is the big element in the situation, and public health workers are now beginning to realize that his cooperation is necessary State medicine is doomed, as well as the practice of medicine by public health nurses and social workers and pastors Physicians form the only group that come into intimate touch with the people medically The doctor's influence far exceeds that of the public health nurse and the department of health

What ever may have been the attitude of the family doctor in the past toward the practice of public health and civic medicine, his present attitude is one of approval A doctor as a individual can do little in the way of practising civic medicine, but a medical leader is powerful when he speaks in the name of the medical profession through his county medical society Too often in the past have the local doctors and county medical societies been ignored in forming plans for public health work in a community But possibly this was only one phase in the evolution of methods of public health work during the time when all methods were on trial, and many disappointments and ill feelings were engendered by inevitable failure of some details

The evolution of public health has now reached the stage of standardization Laymen recognize the value of the leadership of family doctors, and on the other hand, physicians rely on lay organizations to do the work which belongs to them Departments of health, too, are fully recognized in the trinity of public health forces The stormy days of evolution are happily passed, and out of them have come standardized methods and friendly relations among all classes of workers

The present issue of this Journal is devoted principally to a description of the demonstration of the first County Health Department to be established in New York State—that of Cataugus County The amount of work done is

PUBLIC HEALTH METHODS IN NEW YORK STATE

The past two or three years have seen the clarification and standardization of public health work in New York State. Two of the most striking developments have been the practice of public health by medical societies, and the institution of a state-wide system of graduate medical education. Those two lines of achievements have gone on gradually and only a meager record of their evolution has crept into current public health literature published by departments of health and lay organizations. This lack of publicity is due largely to the modesty of physicians, who prefer to publish results rather than intentions.

It is an item of great importance that the physicians of New York State, acting through their medical societies, have reached an agreement with departments of health and lay organizations that each member of the trinity of public health forces shall respect the fields of work of the others. Physicians will

attend to medical and surgical cases which are discovered by departments of health and lay organizations, and in addition they will be ready to give medical advice to the other organizations along administrative and other lines. The fact of such an agreement is a basis by which the whole public health work of the State may be harmonized and coordinated.

The evidence of the sincerity of physicians in their participation in public health work is the graduate education system which is available to every county medical society through the cooperation of the State Department of Health. The courses are practical and emphasize the practice of preventive medicine by family doctors. The response to the courses is most gratifying and indicates that the physicians of New York State are taking their proper place among the practitioners of Civic Medicine and Public Health.

THE EVOLUTION OF PUBLIC HEALTH WORK

There was no science of public health before the days of bacteriology, and there was no practice of civic medicine until investigators had proved the causes of sickness in many classes of diseases.

Sickness was thought to be a private matter up to a generation ago, and it still is so considered by many doctors and the majority of citizens. The saying that anyone who breaks the laws of health deserves to suffer, is the development of the principle of American independence. But the logical sequence of that line of thought is that the whole community which permits a defiance or neglect of health laws will suffer—both the guilty and the innocent.

The first civic measure for the prevention of diseases was the quarantine by public authority, and from its adoption in emergencies has grown the universal plan of departments of health, and of health rules and laws enforced by legal authority.

People are willing to submit to law in the presence of danger that is evident and immediate, but not everyone is willing to submit to procedures which involve annoyance, discomfort, and expense. There are pacifists in public health, just as there are in national defense. There are those who do not believe in the preparation of vaccines and antitoxins for use in the warfare against contagious diseases. The acceptance of modern methods of disease prevention depends on education—a knowledge of the causes of diseases, of Nature's way of defense and of the methods used by doctors to produce immunity. Law is nec-

essary for the ignorant, in order to compel obedience.

The object of a law is to set a standard before the people as a goal to be attained with pride and satisfaction. A standard implies education and teachers.

The principal department of health official during the era of law was the *inspector* who was in reality a police officer. When standards began to take the place of laws, the principal department of health official became the *public health nurse*. Few people ever saw a health inspector unless trouble had actually developed. Everybody sees the public health nurse, from school children to the aged sick.

The public health nurses and the organizations which employed them, went among the people urging them to seek medical relief from their physical defects, and often prescribing for diseased conditions. The doctors as well as the people were unprepared to take serious notice of minor defects or of slight illnesses which might develop into crippling conditions. Doctors were already familiar with the cry of quacks that persons were "threatened" with fatal diseases and they had no desire to exploit sickness. Nurses could warn the people and send them to their doctors.

Health examinations and clinics for the reasonably well found little favor among physicians during the early days of public health nursing. Doctors had always felt the duty to serve the *poor*, but they had not yet begun to realize their duty to the *ignorant*, regardless of the financial or so-



MEDICAL PROGRESS



Occupation Diseases of the Physician—Julius Levy gives a timely account of the affections to which the medical man is peculiarly exposed in the exercise of his calling. Since this is manifold, the physician does not compare with the artisan who may simply be forced to assume a trying position in his work or be exposed to unhealthy chemicals or dangerous implements. The medical man is not confronted with this sort of a hostile environment, but is forced to lead an unhygienic life nevertheless, having no regularity in sleep or meals, and being under mental strain. Thus he is believed to suffer especially from high blood pressure and angina pectoris, but the author passes this over briefly, more space being given to the hazard of contracting contagious diseases. Trub once collected 669 cases of physicians inoculated from their syphilitic patients in various ways. Glanders or farcy is far less dangerous, at least statistically, for in 106 cases of human infection directly from animals only 14 were in medical men. Infection at the autopsy table and from cultures of virulent bacteria in the laboratories is well known, but not very common, most of the transmissible diseases have been contracted at some time or other, including the bedside infections. Laboratory men have contracted plague, glanders, typhoid, typhus, etc., from cultures. Septicemia from operating, from autopsies, etc., is one of the best known and most frequent infections. In like manner laboratory men and surgeons who use strong antiseptics have often been severely poisoned. The accusation that medical men are peculiarly liable to contract drug and alcohol addiction is only too true, Levy thinks, though his experience with drug habituation among the laity is evidently limited. The author mentions further acute poisoning from voluntary experiments with powerful drugs as well as accidental poisoning with the same, and concludes with the pathology of the rontgen rays.—*Medizinische Klinik*, April 9 and 16, 1926.

Treatment of Rickets With Rayed Milk Powder—P Gyorgy, of the Heidelberg Pediatric Clinic, refers to his own earlier papers on the treatment of rickets with rayed fresh milk and to the contemporary efforts in this direction of Hess, Kramer, Steenbock and Daniels, of the United States, and Cowell and Webster-Hill, of Great Britain. The first use of ultra-violet rays was in the experimental rickets of rats. Then Cowell, Kramer, and

the author each independently made the discovery that milk can be "jecorized" or given the therapeutic values of cod-liver oil by exposing it for 24 hours to the rays in question. While cod liver oil itself and the hormone treatment often fail us the "jecorized" milk has proved itself thoroughly dependable. Recently the author has worked with milk powder, fresh milk, and has found not only that it does this thoroughly but that, by spreading the powder in a very thin layer, the time need not exceed 45 to 60 minutes. Gyorgy has now treated 40 rachitic children successfully, and tabulates the full particulars in 20 of these cases. The patients sometimes received first a course of the simple unrayed milk powder as a control. This powder was always quite inert. After beginning the use of the rayed powder, the cases were controlled by the rontgenologist and by chemical analysis of the blood serum with reference to calcium and phosphorus retention. This may be placed approximately at 10 mg and 5 mg respectively per 100 cc for healthy infants. The clinical cure of the patients was checked up by the rontgenograms and blood finds in every case. The author is unusually confident in assuring the reader that rayed milk powder will cure both florid rickets and tetany with almost mathematical precision.—*Klinische Wochenschrift*, April 23, 1926.

Antirachitic Activation by Ultraviolet Rays and Sunlight.—In a review of his own experiments and those of Huldinsky and Hess with reference to the action on calcium metabolism of the ultraviolet rays and of sunlight, Steenbock (*Physical Therapeutics*, May, 1926, xlv, 5) reiterates the conclusion that the antirachitic effect of light is brought about through its action upon the inactive vitamin D. At present he is inclined to believe that this vitamin represents more than one compound. The ability to become antirachitically activated is resident in compounds of a lipoidal and unsaponifiable nature. Various sugars, glycerides, water, salts, gelatin, alcohol, ether, and petroleum cannot be activated, these do not contain the lipoidal unsaponifiable compounds. But evidence has been accumulated by the author and by Hess showing that cholesterol can be made antirachitically active. Cholesterol occurs extensively in nerve tissue, is widely distributed in the body, and is found in large amounts in the skin. Steenbock has demonstrated to his own satisfaction that secretions

commendable, and the methods which have been evolved are worthy of imitation. Anyone wishing to extend a public health service into rural districts will find a record of every phase of similar work actually done in Cattaraugus County.

It is not claimed that the Cattaraugus County Demonstration is the last word in County Departments of Health—the promoters would deprecate that idea. It is rather a practical exhibit of what results will follow the application of city methods to a rural community.

LOOKING BACKWARD

This Journal Twenty-five Years Ago

The New York State Journal of Medicine for June, 1901, contains the following letter from a senior physician giving the expenses of a beginner during the first three years of his practice:

"Sir—Many of the newly graduated in medicine have often asked me what the beginner should do to attain professional and pecuniary success. It may not be inappropriate to sum up the requirements to success as determination, prudence, patience, industry, and energy, before telling the beginner that he should devote not less than two hours each day to study, including general literature and the perusal of medical journals, be a constant attendant at the meetings of some medical society, secure a dispensary appointment for a limited time, pay assiduous attention to his clients, and give a reasonable amount of time to his social duties. He should not think of taking up a specialty until after eight or ten years of general practice."

"The subjoined statement from the account books of a thrifty, economical, well-equipped young physician, three years in practice, will show the result of compliance with these requirements:

First year's income	\$1,000	
Contributions	50	
Office rent	300	
Other expenses, such as board clothing, etc	600	\$950
Balance in Savings Bank December 31st		\$50
Dispensary work for which no money was received, but which, if paid at half his ordinary charges, would		

amount to three thousand dollars. This charity in kind, added to the gift of fifty dollars, swells the charity account to three thousand and fifty dollars. Not many persons in easy circumstances give as much as five per centum of their incomes, nor do they give any more valuable time to charity than this struggling youth has given.

Second year's income	\$1,200	
Charity account	60	
Office rent	300	
Necessary expenses	710	\$1,070
Balance in Savings Bank December 31st		\$130
Third year's income	\$1,500	
Charity account	75	
Office rent	300	
Necessary expenses	800	\$1,175
Balance in Savings Bank December 31st		\$325

"In these three years he had saved more than five hundred dollars bearing interest at four per centum, and had given up his dispensary appointment in order to have more time to devote to his increasing practice and to study. That young man is on the high road to success, and those who may follow his good example, will surely succeed."

How many young doctors now-a-days have five hundred dollars in the bank at the end of three years? Possibly this case, too, was unusual, else it would not have been recorded.

Retrograde Capillary Pulsations in Heart Failure—A retrograde capillary pulsation, one coming from the venules back into the capillaries, seems not thus far to have been described. Such a case has been studied by C S Danzer (*American Journal of the Medical Sciences*, May, 1926, clxxi, 5) in a patient suffering from mitral stenosis, probably associated with tricuspid insufficiency. The capillaries of the skin were visualized by the Lombard-Muller-Weiss method. By this technique the subpapillary venous plexus was made very prominent. The venous portions of the capillaries were especially dilated. In one capillary under observation the corpuscles altered their course, taking first the normal then the reversed direction. In a number of other capillaries there was a periodic acceleration and slowing of the blood stream. There were phases when the corpuscles coming from the arterial limbs of the capillaries collided with those regurgitated back from the venules into the capillaries. This was obviously the result of venous stasis and regurgitation attending tricuspid insufficiency. Such a collision of corpuscles in the venous limbs of the capillaries is never seen in health. These findings prove the existence of back pressure in the venous system. This fact assumes great importance in the differentiation between circulatory failure due to back pressure (venous stasis, right-sided cardiac failure) and that due to diminished vis a tergo (left-sided heart failure). In the latter case no such signs could be present. The pressure in the capillaries was determined by the Danzer-Hooker method with the microcapillary tonometer. As the capillaries were compressed the first stage, or beaded flow, was followed by the fourth stage, reversion of the blood stream, both of these were intermittent instead of continuous. The fact that both stages were periodic is the essential pathological feature of the observation. It is probable that a retrograde capillary pulse is sufficiently characteristic to be used diagnostically in obscure cases of tricuspid leakage.

Serum Treatment of Tetanus—Jonathan M Wainwright (*Archives of Surgery*, May, 1926, xii, 5) finds from a study of British and American statistics that tetanus is rare in the ordinary type of industrial wounds, it does not occur sufficiently often to warrant urging routine prophylactic injections in all industrial wounds. We must, however, accept the possibility of tetanus arising in the most unexpected cases and rely only on the possibility of improved curative treatment. Although the war proved beyond question the value of prophylactic injections, there has been considerable doubt as to whether antitetanus serum has any real curative value after symptoms are established. This pessimism is largely due to two factors (1) Antitetanus

serum given intraspinally is harmful and diminishes the chances of recovery, (2) when the serum is administered by less harmful methods it is usually given in doses so small that it cannot be expected to be of any benefit. In 190 cases compiled from the literature, which were treated with 10,000 units intrathecally in a single dose, the mortality was 59.5 per cent, or practically the same as for patients receiving no serum. There is an increase in the death rate when intrathecal injections are added to any other method of treatment. In 90 cases compiled from the literature or reported directly to the author, when 30,000 or more units were used intravenously the first day of treatment, the mortality was 32 per cent. If this dose is not completed till the end of seventy-two hours, the mortality rate rises rapidly, though even so it does not reach the hospital average. Given by vein in doses from 30,000 to 50,000 units or more, according to the severity of the symptoms and the time since onset, it will divide the present mortality rate by two or three, or more. The efficiency of this dose will depend upon the promptness with which it is given. If the initial dose has to be repeated it should be of approximately the same size and by vein only. In the last days of convalescence intramuscular injections are allowable. The best sedative is chlorbutanol, in a dose of 30 grains (1.95 gm) dissolved in hot whiskey by mouth, or 75 grains (4.87 gm) in hot olive oil by rectum, repeated sufficiently often to keep the patient relaxed and drowsy until the danger is past.

Influenza in Infants and Children—During a recent epidemic of influenza which largely attacked infants and children, James Burnet (*Archives of Pediatrics*, April, 1926, xliii, 4) had unique opportunities for making observations. He found the incubation period short, in one or two instances twenty-four hours, the temperature high in the majority of cases, prostration and apathy and lethargy well marked. Three clinical types of the disease were distinguished. (1) A *catharrhal type* was the commonest, it was characterized by running from the nose, a dry, hard cough, which was extremely irritating, and in some instances vomiting and diarrhea. In older children headache was complained of. This type more than any other had a tendency to develop otitis media. (2) A *cerebral type* was noted in which the symptoms were meningeal, there being twitching, drowsiness, and stupor, with high temperature (105.5°), and in two cases convulsions. (3) A *colic type* showed symptoms quite out of the ordinary. The child complained of colicky pain in the region of the umbilicus, which gradually became more intense.

can be activated but that the radiation cannot penetrate skin itself, also that the exposure of goats to ultraviolet rays markedly increases the antirachitic value of their milk. While olive oil can be activated by exposure to the rays, the antirachitic value of cod-liver oil is not increased thereby. Experiments have demonstrated that not only is little, if anything, gained by exposing cod-liver oil to irradiation, but that with excessive exposure, the antirachitic properties of the oil may actually be destroyed. Cod-liver oil is so potent in the antirachitic agency that it can be recommended without further treatment.

Sensibility and Sensibilization to Light Rays—The title of this serial article by A. C. Guillaume has a practical sound, but the author merely deals with a theoretical problem of pure physics. In his conclusions he considers the transformation of actinic rays after these have been temporarily absorbed by the skin—for without absorption, there can be no physiological or therapeutical action. Incidentally he states that there is no inborn sensitiveness to these rays and those who show sensitiveness have become sensitized by the rays themselves. There are a number of transformations of energy possible such as (1) change in the wave length and production of caloric rays, (2) biochemical reactions, and (3) ordinary electric energy, as shown by the behavior of the electroscope. There is also the development of fluorescence, but this phenomenon stands in some relationship to failure of absorption. Collectively all of these transformations sum up as modalities of the disintegration of actinic light. As to how these transformations are made possible in a skin not originally sensitive to light the author poses the existence of what he terms a colorant which exerts a sort of catalytic action and sensibilizes the skin. He makes a comparison here with the solutions used by photographers. If fluorescence develops, the presence of an absorbent substance in the sensitive system will do away with it—*Le Bulletin Medical* 20, 21 and 22, 1926.

The Abuse of Rest in Cardiac Therapy—It is firmly established that rest is a valuable measure in the treatment of heart disease, and William D. Reid (*Boston Medical and Surgical Journal*, June 3, 1926, cxciv, 22) freely admits that he frequently resorts to it. He contends, however, that it is too frequently and too strictly applied in cardiac therapy. The presence of heart failure (broken compensation) of a sufficient degree or that of heart infection in an active stage is perhaps the chief indication for rest. Heart failure of moderate severity, particularly if not persist-

ent, is not, of course, incompatible with being up and about. In most cases of cardiovascular syphilis the patient does just as well if allowed moderate activity provided suitable antisiphilitic therapy is administered. In rheumatic heart disease, after the disappearance of signs of activity of the disease, the author finds no convincing evidence that prolonged rest in bed (for many months) accomplishes anything better than does gradual resumption of activity a short time (one to four weeks) after the disappearance of the acute stage of the disease. Unintended harmful results of rest are (1) Physical—the difficulty of getting elderly patients out of bed again, the danger of hypostatic pneumonia and loss of muscle tone, (2) psychic—the danger that condemning the patient to idleness may perpetuate a neurotic tendency and result in a fixation of the idea of invalidism, (3) economic. Finally, suitable exercise is part of good hygiene; its benefits should not be denied to individuals with diseased hearts.

What Is Sport Heart?—H. Herxheimer, of Berlin, asks what is the exact status of the so-called athletic heart. Three theories have been proposed: (1) that it is a simple hypertrophy from overuse, (2) that it is an acute passive dilatation, and finally (3) that it is something sui generis known as "active dilatation." The author himself has studied the matter exhaustively in a number of subjects and concludes that when the heart is unduly overburdened it responds by an hypertrophy which is sometimes not out of proportion to the simultaneous development of the skeletal structures, but in other cases is much more pronounced. In such cases the volume of the heart is increased to all tests and the author finds the enlargement a perfect hypertrophy in all of its measurements. The author found further that in a seasoned athlete in the pink of condition the heart undergoes a sort of relaxation in which hypertrophy may or may not coexist. He demonstrates that an acute passive dilatation of these hearts is a physical impossibility. Such a heart would be quite unable to empty itself by systolic contraction. In reply to the claim that after a period of passive dilatation the heart may undergo hypertrophy, the author replies that such delayed hypertrophy is unheard of and that hypertrophy must occur at once or not at all. In regard to the so-called "active dilatation," in which the heart is said to hypertrophy with increase in its capacity, Herxheimer states that the term is a misnomer. What others have called "active dilatation" he himself has termed relaxation of the muscle. As already stated he recognizes the existence of this condition—*Klinsche Wochenschrift*, April 23, 1926.

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The abdomen was definitely tender in the center, but peripherally and in the flanks there was no pain. Vomiting and diarrhea did not occur. The author explains this pain as due to the effect of the influenza on the intestinal muscles, leading to spasm and consequent pain. These cases also presented the characteristic dry, irritative cough. In the treatment of influenza in early life, the patient should be kept warm in bed during the attack, and for some days after the temperature has become normal. A febrifuge should be administered with small doses of wine of ipecac. The diet should consist of milk, soups, and later milk puddings, fish, and chicken. During convalescence cod-liver oil, nux vomica, and iron should be given. In the colic cases, warm linseed poultices are useful in relieving the pain. Steps should be taken to prevent middle-ear infection.

The Reticulated Red Cells—Their Clinical Significance.—In the opinion of William Dameshek (*Boston Medical and Surgical Journal*, April 29, 1926, cxciv, 17) the significance of the reticulated cells, though more or less realized, has not yet been fully sensed. At the Blood Laboratory and Clinic of the Boston City Hospital routine studies of the reticulated count have been made in all cases since 1919. The method employed consists in placing a drop of blood on a cover slip which is inverted on a slide containing at one end a dried drop of cresyl blue, 0.3 per cent in alcohol solution. The drop of blood and dye are allowed to mix for three or four minutes. Under high dry power or oil-immersion, those cells which are seen to contain within their cytoplasm granules, rods, or network are called reticulated, and their number is counted. In 50 cases of pernicious anemia followed over periods sufficiently long for intelligent observation, the reticulated count rose in practically all cases to a point above 6 per cent before a remission. Relapse, usually death, followed always in the wake of a continued low count. Transfusion and splenectomy are futile in the presence of a continued low count. In practically all cases there was some rise, however slight, following transfusion. Occasionally a reticulated count is seen to rise sharply, presaging a remission, and then because clinically the patient seemed in jeopardy, transfusion is done. The remission which occurs naturally has then been ascribed to the transfusion, when undoubtedly it would have come without it. A study of aplastic anemia with its continued low reticulate count, purpura hemorrhagica which shows an interesting parallel between platelets and red cell regeneration, congenital hemolytic anemia, the anemias of pregnancy, and the secondary anemias, indicates that the reticulate count of the red cells is a true index of the

amount of bone-marrow activity—a better one than nucleation of red cells, polychromatophilia, or stippling. Before and at the beginning of any remission or permanent rise in red count the reticulate count surpasses 6 per cent, as the culmination of the rise is reached it gradually falls to normal (0.5 to 1 per cent). With bone-marrow aplasia, the reticulate count is extremely low, practically nil. The relapse in pernicious anemia is closely related or at least extremely similar to aplastic anemia, which, with its evident bone-marrow failure, has an almost absent reticulate count. Platelet regeneration and aplasia are apparently closely related to red cell growth, for in purpura hemorrhagica the reticulate count goes up before recovery, but remains low in cases of impending death from hemorrhages. In the field of diagnosis, marked reticulosis in congenital hemolytic anemia is a pathognomonic point differentiating that disease from all other anemias with large spleens. In the primary type of anemia of pregnancy, the reticulate count behaves exactly as in pernicious anemia. In the leucemias and diseases of lymphoid origin, the reticulate count may be slightly elevated, but without relation to the course or scope of the disease.

Prophylaxis of Measles.—M. Meissner writes of results obtained from the injection of Degwitz's convalescent measles serum in a child sanitarium. The serum used in the sanitarium in question, which is in Chemnitz, was not a commercial one but was prepared extemporaneously in the Chemnitz General Hospital. The population of the institution is in the vicinity of 200, all of the children being sickly, with symptoms pointing especially to scrofula and tuberculosis. For measles to gain entrance here would mean, as it has in the past, a disaster. The latest batch of admissions comprised thirteen children, and according to custom all were segregated for examination before they were allowed to mingle with the other inmates. Of the 13 one was found to be in full measles, and the others had been in its company for about two hours. Five of the 12 were known to have had measles, while the other 7 were not known to have had the disease. Each one of the 7 received one unit of the convalescent serum. No new case developed and after 14 days the 12 new patients were allowed to mingle with the other residents, and again there was no development of the disease. Of the seven immunized one developed a late urticarial outbreak—on the fifth day after injection—which was attributed to the serum and which vanished in a day or two.—*Medizinische Klinik*, April 23, 1926.

NEWS NOTES

TESTIMONIAL DINNER TO DR SHAW

The Testimonial Dinner to Dr Henry L. K. Shaw, which was voted at the last meeting of the Council, found a happy conclusion at the University Club, New York City, when forty-five men sat around the board and congratulated the Committee on Legislation, of which Dr Shaw is Chairman, on the successful passage of the Medical Practice Act.

Dr Augustus Downing was an honored guest as were Senator Webb, Hon George W Whiteside, Wendell C Phillips, Health Commissioner Louis I Harris, Mr Lloyd P Stryker, Ex-Presidents Van Etten, Jones, Wightman and a host of friends who had labored long years to bring about the passage of a Medical Practice Act.

Dr Dougherty read a telegram of congratulations from State Commissioner of Health Matthias Nicoll, and messages were also read from Dr Trick of Buffalo, Dr Rooney of Albany, Doctors Cady, Kevin, Chittenden, and Lytle.

Dr George Fisher, who presided, humorously stated what probably is a fact—"The Medical Practice Act represents in principle as great an event as when the Lord gave Moses the Ten Commandments."

Dr Van Etten reviewed the progress of the State Society during the past year, emphasizing the able scientific programs which Dr MacFarlane had secured. These reached a high point of efficiency in the syphilis exhibit. He mentioned also the educational programs, given with the whole-hearted support of Dr Nicoll, State Health Commissioner.

The Medical Practice Act was passed under Dr Shaw's leadership. This was a most able achievement. Too much praise could not be given to the lay organizations, such as the State Charities Aid Association, who did yeoman service in awakening a public conscience to the justice and need of the bill. It was a bill for the protection of the people and not the medical profession. Dr Phillips spoke truly when he said that it was one of the most notable medical achievements in a decade. It was first, last, and always a Public Health Act and should be the basis for other States to formulate the necessary law to drive out quacks and charlatans.

Dr John Jennings, who took an active interest as one of the Committee who drew up the Act, felt it was a notable event and expressed his congratulations to Dr Shaw for its passage.

Hon George W Whiteside, our former Counsel, was particularly fortunate in his congratulations. The bill has been drawn and revised times

without number by Mr Whiteside. Each administration had added something worth while. The background had been strengthened by uniting our Departments of Health and Education. Then the Lay Organizations joined, and a united front resulted. From then on the Bill was not the doctors' bill, but a bill for the protection of the public health.

Mr Whiteside paid a just tribute to Dr James Vander Veer, whose tireless energy at Albany, as former Chairman of the Legislative Committee, made the machinery of this office effective.

Dr Louis I Harris, Health Commissioner of New York, added most valuable advice when he stated that the passage of this act was a solemn obligation upon the medical profession—one which we should not take too lightly. Our attitude should be conciliatory, and the profession should be unified. Lay bodies would stand behind the profession as long as we do a public service. The medical profession should be impersonal and have a solemn sense of its duty. It owes Dr Downing an obligation, and should support him in time of stress. Public health commands the community. The passage of this act is the beginning of a colossal job.

Dr James Vander Veer spoke modestly of his past tribulations, but emphasized the able work of his lieutenant, Dr Joseph Lawrence, our Executive Officer, who quietly carried out Dr Shaw's policy in unifying every available lay body in support of the Bill. He felt that doctors should only promulgate the right ideas—laws which were as honest in their intent as their oath to practice. People always follow an honest doctor.

Mr Stryker, Counsel of the State Society, said that in a period of reconstruction a unity of action was imperative. There would be men who through a misunderstanding might cause temporary embarrassment, but the time would come, and that shortly, when the basic value of the new law would be appreciated, and then everybody would help.

Dr Wendell C Phillips, President of the American Medical Association, said he was genuinely proud of New York State, not because he was born in St Lawrence County, but because New York was helping the whole country when it took the lead in trying to set a standard medical practice act. He said that a valuable section in that law was the inclusion of a Grievance Committee, and that the men who were to be selected should have a just mental angle, coupled with a fearless administration of the office.

Dr Downing congratulated the Society on a unity of action which had secured the passage of the Bill. He felt that his part in it was all in a day's work. He felt glad he had accomplished something, there was nothing to exalt one, it was a task which concerned the health of the people. This Bill was the best one passed by any state as far as he knew. It was not perfect, but was a good beginning. Minnesota was trying to put one over, Rhode Island the same, Maine sent congratulations—Texas, Illinois, all wanted to get in line. We probably had planted better than we knew. Physicians were not detectives. Malpractice was a crime against the people of the State, not against the medical profession. There need be no worry about the enforcement of the law, it would come surely and positively.

Dr Downing added a word for fair play "Don't hit a man when he is down." He might have added a "down and outer," once convinced sometimes makes the best kind of an enthusiast.

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The writer, who was present, can recall no occasion of a dinner given over to State affairs when so genial a spirit was present. It only emphasized the value which gatherings of this kind may attain. There was neither "boast of chivalry nor pomp of power," but a spirit of comradeship and a singleness of purpose for the best interests of the profession.

Dr Kopetzky, as Chairman of the Testimonial Dinner Committee, is to be congratulated on its success.

CLINTON COUNTY MEDICAL SOCIETY

The semi-annual meeting of the Clinton County Medical Society was held on June 15, 1926, and was preceded by a luncheon at the Witherill Hotel.

Dr T. A. Rogers was authorized to formulate plans for the formation of an auxiliary society to be composed of medical and laymen, and to present same to this Society at a future meeting.

The Committee on Public Health and Medical Education reported through the secretary that they had arranged a course of post-graduate lectures in Obstetrics through the State Society Committee, and that such course had been given with considerable success.

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Discussed by Drs. Burdick and Schiff.

Following this paper, the following resolution was carried by the Society:

In view of the occurrence of cases of diphtheria from time to time in Clinton County, in spite of improved methods of treatment and better enforcement of health regulations, and further

Believing that the value of toxin anti-toxin as a preventive measure against diphtheria has been fully demonstrated

Resolved, That the Clinton County Medical Society endorses the state wide campaign for the eradication of diphtheria.

We urge parents to have all children under ten years of age protected by toxin anti-toxin injections, and particularly to have this done when possible before the child reaches the age of one year.

INFORMATION CARD OF A M A DIRECTORY

During the month of June, every physician in the State should have received a Directory information card. Every one is urged to fill out and return the stamped card regardless as to whether he or she has changed their residence or office address. This information will be used in compiling the Tenth Edition of the American Medical Directory, now under revision in the Biographical Department of the

Association. The Directory is one of the altruistic efforts of the Association and is published in the interest of the Medical profession which means ultimately in the interest of the public. It is a book of dependable data concerning the physicians and hospitals in the United States and Canada.

AMERICAN MEDICAL ASSOCIATION

June 15, 1926

THE DAILY PRESS

AUTOMOBILE KILLINGS

Civilization brings its own peculiar dangers to life and health, and the automobile has displaced some of the common contagious diseases as a cause of death

The New York Tribune for June 14, contains an article with the following headlines

"22,500 killed by autos in 1925, 675,000 hurt"



Cartoon from the New York Herald Tribune June 21 1926
Another crop where the supply exceeds the demand

The article is based on the reports of the National Bureau of Casualty and Surety Underwriters, and of the statistics committee of the National Safety Council. This indicates that about six persons in every 1,000 of population will be killed or injured in automobile accidents during the present year.

It is disconcerting to read that the number of automobile accidents is increasing. The article says

"The number of persons killed surpassed a preliminary estimate of 21,000 deaths made by the safety council on the basis of earlier incomplete information. It is possible, the report says, that when complete returns from more cities become

available the number of deaths from automobiles may be increased

'Automobile fatalities excluding collisions with street cars and railroad trains, increased from 17,600 in 1924 to 19,800 in 1925, the report continues. Automobile grade-crossing fatalities increased from 1,668 in 1924 to 1,784 in 1925

"The automobile death rate per 100,000 population has increased from 14.9 in 1923 to 15.7 in 1924 and to 17.2 in 1925, the report continues. 'The increase therefore from 1923 to 1924 was 5 per cent, while the increase from 1924 to 1925 was nearly 10 per cent. Automobile fatalities are, therefore not only increasing in number, but the rate at which they are increasing also is going up.

"Registrations increased from 17,591,981 in 1924 to 19,954,347 in 1925. Fatality rates on the basis of registration have been decreasing for several years it is said, but there was virtually no decrease this year.

During 1925 it is estimated that 6,300 children under fifteen years of age were killed in automobile accidents compared with 6,090 in 1924. The rate of deaths to children under fifteen increased only about 3½ per cent over 1924, however, while the fatalities among grown-ups increased about 14 per cent. This fact seems to indicate, the report says, that safety education in the schools is having its effect.

"Certain cities which have carried out intensive safety programs have noticeably decreased their automobile fatalities, showing that the situation can be controlled, the report continues."

The proportion of automobile fatalities in New York State is about the same as it is in the rest of the nation. The vital statistics reports of New York State for 1924 show that 1,987 persons were killed by automobiles in the State. This number of deaths exceeds the number caused by diphtheria, typhoid fever, and scarlet fever.

The cause of automobile accidents in a series is discussed by the New York Sun on March 5, and is shown in the following table

Skidding	36 per cent
Failure to observe the right of way	28 " "
Exceeding speed limit	15 " "
Cutting left corner	6 " "
Driving off roadway	6 " "
Driving on wrong side of road	6 " "

The proportion of the causes of injury to pedestrians were

Jay walking	25 per cent
Crossing streets against signals	7 " "
Injured at street intersections	30 " "

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AMERICAN MEDICAL ASSOCIATION

June 15, 1926



BOOK REVIEWS



HEADACHE, ITS CAUSES AND TREATMENT By Dr THOMAS F. REILLY, Attending Physician Bellevue and Allied Hospitals, Fordham Division, and at St. Vincents Hospital. P. Blakiston's Son & Company, Philadelphia, 1926 Price, \$3.00

Headache is one of the commonest symptoms encountered in medical practice. Any attempt to clarify the mystery that surrounds this symptom deserves commendation. The author presents the characteristics of headache as it occurs as a part of the symptomatology of a great many diseases.

The book presents on careful study the impression that it was hurriedly written, and a new revision will be of much more value than this first production, although the present edition is of considerable value. An illustration of the lack of a critical review of its contents is to be found under Simple Goiter. It is a well established fact that there are no constitutional symptoms produced by simple goiter, and symptoms occurring in such patients are the result of some other diseases and not a by-product of the goiter. It is rather uncomplimentary to speak of patients with goiter as "an exceedingly unstable lot."

The book is of value, and we take great pleasure in recommending it to anyone interested in headache, which surely ought to interest every practitioner of medicine.

J. ARTHUR BUCHANAN

LISTER AND THE LIGATURE. A Landmark in the History of Modern Surgery. Compiled by the Research Readers of the Scientific Department. Octavo of 89 pages, with illustrations. New Brunswick, N. J., Johnson & Johnson, 1925

In this little book the research workers of the scientific department of Johnson and Johnson have collected the facts relating to the re-introduction of the absorbable ligature. They have pointed out the important part that Lister and Listerism have played in rendering generally available this necessary surgical material quoting, at length, from publications in which his writings appeared. The illustrations are of Lister himself, and of some drawings made by him.

These few pages leave one deeply impressed by the genius for research and investigation of Sir Joseph Lister, and make interesting and instructive reading for the student of surgical history.

J. R.

THE STOMACH AND UPPER ALIMENTARY CANAL IN HEALTH AND DISEASE. By T. IZON BENNETT M.D., (London), M.R.C.P. Assistant Physician to the Middlesex Hospital Physician to the Royal National Orthopaedic Hospital etc. William Wood & Company, New York, 1925 Price, \$6.00

This book written by an English gastroenterologist can be recommended as one of the best treatises on the subject of gastroenterology yet published. The writer has evidently had a vast experience in treating the various infections of the gastrointestinal tract by eradication of local infections and the book is therefore the first to give the proper amount of space to this all-important factor in the causation and treatment of these infections. His recommendations for treatment are safe and sane, and are not bound down by ancient tradition, as are most of the therapeutic directions in text-books on this subject. The chapters on physiology and on general examination of patients are well worth careful study. The illustrations and tables are well-chosen. The so-called "functional disorders" are dismissed with the

scant attention they deserve. The book is one that the general practitioner as well as the specialist should own and study.

A.

LIGHT AND HEALTH. A Discussion of Light and Other Radiations in Relation to Life and to Health. By M. LUCKIESH and A. J. PACINI. Octavo of 302 pages, illustrated. Baltimore, Williams and Wilkins Company, 1926 Cloth, \$5.00

Though not strictly a medical work, this book presents an excellent exposition of the far reaching relationship of light and health. There are chapters of particular interest on light and its effects on the various body structures, their development and maintenance in normal function. A chapter on light and infection presents some remarkable aspects of phototherapy in the handling of such conditions. The effects of light upon hygiene, the senses and upon production in industry, long recognized as existing, are presented in an orderly and comprehensive manner. This book is of inestimable value to all who would treat or prevent abnormal conditions on a truly scientific basis, as it thoroughly presents the present conception of a modality which can no longer be disregarded in therapeutics.

JEROME WEISS

MEMORANDA OF TOXICOLOGY PARTLY BASED ON TANNER'S MEMORANDA OF POISONS. By MAX TRUMPER, B.S., A.M., Formerly Lecturer on Toxicology, Jefferson Medical College, Philadelphia, with introduction and addenda by HENRY LEFFMAN, A.M. M.D., Emeritus Pathologic Chemist Jefferson Hospital, Philadelphia. P. Blakiston's Son & Company, Philadelphia, 1925

This book is a well arranged treatise on the subject of Toxicology. It is compact, scientifically correct in detail and not too voluminous to be of service as a reference in emergency poisoning. The classification of poisons into three groups is practical, namely Corrosives Irritants and Neurotics, the latter being further subdivided.

A treatise of this kind should be a part of every physician's library.

FREDERICK SCHROEDER.

NON-SURGICAL TREATMENT OF DISEASES OF THE MOUTH, THROAT, NOSE, EAR AND EYE. By THOMAS H. ODENSEAL, M.D., Otologist, Rhinologist, Laryngologist and Ophthalmologist to the Bernal Hospital Corporation, Beverly Mass. P. Blakiston's Son & Company, Philadelphia, Pa., 1926 Price, \$4.00

In this comparatively small manual the author has attempted to cover the non-surgical treatment of Diseases of the Mouth, Throat, Nose, Ear and Eye. For a task that is at once manifestly formidable, he has accomplished much.

Taken altogether this book is of value as a ready reference for the general practitioner or the beginner in Otolaryngology.

The last twelve chapters of the book are deserving of special mention.

These chapters deal with general subjects of special significance which are all too frequently omitted from some of the even more comprehensive text books.

M. C. M.

ABDOMINAL AND PELVIC SURGERY FOR PRACTITIONERS By RUTHERFORD MORISON Hon. M.A. and D.C.L. Hon. LL.D., M.B. FRCS. 12mo of 212 pages, with illustrations. New York Oxford University Press, 1925 Cloth, \$2.75 (Oxford Medical Publications)

Confused by traffic	11 per cent
View obstructed by umbrellas, bundles, etc	12 " "
Intoxicated	3 " "

Back of the causes enumerated in these tables is the mental attitude of both the drivers of the cars and of the pedestrians

Is it possible to detect the type of mind which is liable to lead to accidents? Psychologists say that it is

Everybody knows that absent-mindedness leads to accident. A man with a "one track" mind is likely to forget the road and his steering wheel while he is absorbed in his literary or scientific thoughts

The reaction of the brain is also to be considered. Some people react quickly to stimuli and others only slowly. One-tenth of a second is a fast reaction time in which to respond to a signal. Half a second is slow, and will lead to accidents

The reaction time is also slowed by fatigue. Many a tired doctor has driven his auto through the side of his garage because his brain was too fatigued to send the stop order to his foot promptly

The newspapers have recently carried a number of articles on psychological tests for auto drivers. An unusually slow reaction time will be disclosed with great precision, and other factors may be determined

The New York Tribune for March 11 describes the plans of the Yellow Taxi Corporation for testing its drivers, and says

"Drivers of the Yellow Taxi Corporation soon are to undergo psychological tests to keep the streets from those who, through lack of mental celerity, add to the toll of street accidents. A clinic for this work now is being established in the company's offices in 514 East Twenty-third Street, and will be ready in May or June, under the direction of Dr. Bernard Christie Bullen

"Then all applicants for jobs with the Yellow corporation will have to undergo the tests. It is believed they will eliminate 50 per cent of the minor accidents and about 35 per cent of the more serious ones. The tests are partly the work of Professor A. J. Snow, of Northwestern University, and have been developed through special research work in Chicago, where students of Northwestern University were used

"Dr. Bullen said yesterday that the tests will seek to establish three main facts: degree of receptivity, speed of mental reaction, and carelessness. In determining the speed of mental reaction, Dr. Bullen will try to learn the speed of

awareness of change in traffic signals. The results will be recorded mechanically and will be considered infallible

"The great hazard in taxicab operation," said Dr. Bullen, "is the smart aleck, know-it-all type. In our mechanical tests this man can escape us. He is too quick for these tests. In a classroom, under the eyes of an examiner he shifts gears, backs, starts and does everything else that he is told to do correctly. But after a few weeks or months on the street his know-it-allness develops into sheer recklessness, and there is trouble. A well developed medico-psychological tests should eliminate this type at the start

"Another dangerous type is the superlatively cautious man. Give this type a test for his speed in reaction, and you have him stopped at once"

The New York Tribune of February 20, prints a letter from Paul O. Komara, of the National Committee for mental hygiene, which explains the scientific basis for the psychological tests. It says

"The recent announcement of the Committee on Causes of Accidents of Secretary Hoover's National Conference on Street and Highway Safety, that mental examinations would be recommended for reckless automobile drivers furnishes another illustration of the usefulness of a diagnostic agency which has developed apace with the growth of the mental hygiene movement the psychiatric clinic

"The psychiatric clinic, in which the psychiatrist, the psychologist and the psychiatric social worker combine their resources, is the laboratory par excellence for the investigation of the human personality, and such questions as the mental age, required in persons desiring to qualify as safe drivers of motor vehicles, the presence or absence of mental disease, whose symptoms are not easily discernible, emotional disabilities, mental attitudes, etc., offer a fertile field of inquiry that should yield results having a very definite bearing upon the practical solution of this serious problem. Any campaign which aims to reduce accidents cannot reach its highest degree of success unless the 'human element' or 'mental element' is taken into account and the psychiatric clinic deals primarily with that element"

The psychologists of the United States developed a series of mental tests to be applied to soldiers as their peculiar contribution toward winning the war. The great success of the tests arouses confidence that the psychologists will devise equally practical tests that will detect the auto drivers who are likely to have accidents

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THE MENTAL HEALTH OF SCHOOL CHILDREN*

By WILLIAM A. HOWE, MD, ALBANY, N Y

State Medical Inspector of Schools

THE mental health of school children is one of the biggest, the most promising in its possible future results, and yet the most seriously neglected of health problems of the present day. The rapidity with which nervous disorders are increasing among school children and the continued failure by physicians, educational authorities and parents to give proper medical, educational and parental attention to them, amaze and alarm students of child health. During the past ten years the number of children reported in one year to the Medical Inspection Bureau suffering with nervous disorders increased 3,196 or 169%. This, as you will note, gives an annual increase of 16.9%. These figures, which I appreciate are not accurate, except in clearly indicating the rapid increase in the incidence of mental illness, do not include the mentally defectives, of whom we have many thousands in our public schools, ranging from low imbeciles to high morons. Our reports received do not fully indicate the actual conditions existing. Thousands of the minor cases are not even recognized and many others fairly well established in their mental deviations are not included in the reports. Even more serious than the failure to recognize and report these cases, is the almost criminal neglect or failure to give to them the preventive and correctional treatment so vital to their mental health, their happiness, their success or failure in life.

Our State Hospital Commission advises us that during the past ten years, the same period covered by our school reports there has been an increase of 181% or of 18% annually in the number of persons admitted to institutions for mental diseases. These figures, like those for the schools, do not include the mentally defective. These school and hospital statistics to which many others could easily be added, furnish conclusive evidence of the extensive and increasing prevalence of mental illness and the urgent need for action. In this,

as in most fields of modern medicine, the greatest opportunity to accomplish practical results is found in preventive measures.

The problem is fundamentally a medical one. To deal successfully with it medical knowledge and direction are indispensable. The physician is the natural leader in the movement. Let us hope that he will not lose his opportunity to lead.

ETIOLOGICAL FACTORS IN THE MENTAL HEALTH OF CHILDREN

Many and varied causal factors influence the mental health of children. We find them within the child, inherited or acquired, within the parents, within the home, within the school, within the companionship, within the community and in many other places. Within the child they may be due to an inherited predisposition to mental instability, or to some physical defect, said to be present in 85% of all cases, or to some faulty elimination, intestinal, nephritic or otherwise, or to some focal infection in abscessed teeth, diseased tonsils or elsewhere, or to some deficient glandular action, endocrine or otherwise, or to unrestrained emotional conditions, or to fatigue, mental or physical, often not recognized, appreciated or properly treated, or to any one of many other causes.

By parents we find influences, good or bad, exerted before and after birth. Both prenatal and post-natal influences as exerted by parents are potential factors in the ultimate success or failure of the child. Both require careful consideration and wise direction. Those of prenatal origin, embracing combined maternal and paternal force, are the strongest and the most enduring, lasting in many instances throughout life. Those of post-natal development present a greater variety, are often more complex in character, seem more difficult to control, though of parental origin, and may produce most disastrous results.

It is a wise parent indeed who carefully

* Read before the State Medical Society March 31, 1926

Quite a number of monographs have appeared of late on the acute surgical diseases of the abdomen and the reviewer had occasion to comment on a number of them in these columns. The present little volume, however, exceeds in interest and merit most of its predecessors. Surgical technique and the various operative procedures are left out entirely. Its contents are limited to a recital of the author's personal experiences with practically every possible abdominal condition extending over a considerable period of time in an extensive surgical practice. Special stress is laid upon diagnosis emphasizing that if the condition is surgical the patient should be submitted to operation at the earliest possible opportunity.

It is a most practical book. Theories and speculative dissertations are conspicuous by their absence. Not a word about complex laboratory procedures, except for an occasional reference to the ordinary blood count or urine examination. It is the clinical side that is dwelt upon and the conclusions that may be drawn from a careful examination of the patient with the particular purpose in view to operate if the condition is surgical.

A most excellent book to have on one's desk and to refer to it frequently in order to refresh one's memory and also to recall some personal experiences that might have terminated more favorably if recognized and treated properly.

HERMAN SHANN

OPHTHERAPIE ENDOCRINIENNE. Les Bases Physiologiques, les Syndromes, la Posologie de l'Opothérapie par les Glandes à Sécrétions Internes. Par GUY LAROCHE. Octavo of 256 pages. Paris, Masson & Cie, 1925. Paper, 12 francs.

The most outstanding contributions to medicine made in the last few years have been in the study of the endocrine glands and the successful extraction of their active principles. No one today questions the important function that these glands play in maintaining the physiologic development of the individual and we have all observed the serious and obvious changes that occur when the glands have become diseased and their secretions diminished, increased or perverted.

The author has succeeded in condensing into a small volume of 256 pages and 17 figures a review of the entire field. Each known endocrine gland is described, the literature reviewed and its function considered in detail. Those syndromes that result from abnormal or deficient secretions are fully described, those clinical and biological tests of recognized value discussed and the indications and contra-indications for treatment are outlined. The various methods used in isolating or extracting the active principles are fully described and details are given as to dosage and mode of administration.

H. M. FEINBLATT

AN EPOCH IN LIFE INSURANCE. A Third of a Century of Achievement. Thirty-three Years of Administration of the Metropolitan Life Insurance Company. 2nd Edition. Octavo of 306 pages. New York, The Company, 1924.

A review of sixty years business in life insurance, especially the last thirty-three. This is a fascinating story of early struggles and severe competition for a quarter of a century and then a rapid and marvelous growth to the proud position of leader of them all. Especially interesting are the chapters showing the reasons for mutualization, the need and provision for standard insurance, disability and indemnity clauses, etc. The chapters on welfare work for policy holders and employees, investments and war work give an insight of some of the many lines of work a large insurance company must follow.

L. S.

ABDOMINAL OPERATIONS. By Sir BERKELEY MOYNIHAM. 4th Edition, revised. Two octavo volumes totaling 1217 pages, with 470 illustrations, 10 in colors. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, \$20.00.

A fourth edition of this classic book is welcomed by American surgeons, particularly by those who remember the sensation that was caused by its first appearance. It was a good book, presenting, as it did, the interesting spectacle of an Englishman taking surgical America seriously without losing his own self-respect.

It is a good book and it has the same virtue still. It is essentially a study of standard method in abdominal surgery from a British surgeon informed by American travel. Sir Berkeley Moynihan, the most American of British surgeons, could almost pass as the most British of Americans.

He has grasped much of the American emphasis on method perhaps a little too much, more, one would say than our real leaders betray and yet not too much for England which needs just that stress, nor for the average surgeon anywhere and he has injected a good deal, quite a little, perhaps a little too little of the sturdy British common sense that we here in America need.

Shall we say that to this synthesis he adds that mysterious charm that he himself owes to the race that gave him birth?

The last edition of this book was published just before the war and what the author, in his preface, describes as a very drastic revision has taken place. Two chapters have been deleted and several new chapters among them one on Surgical Technique, which in its simplicity and its essential completeness well repays study, have been added.

A chapter on the Complications and Sequels of Abdominal Operations is equally valuable.

The chapter on Acute Peritonitis is missing which is a loss. The time is ripe for a review of that subject but it will require more bacteriology than is, shall we say, betrayed in the first chapter.

The remaining fifty-four chapters of the book discuss abdominal incisions, gunshot wounds of the abdomen, tuberculous peritonitis, subphrenic abscess, the surgical treatment of visceral prolapse and of intestinal stasis and sections on operations upon the stomach, upon the intestines upon the liver and upon the pancreas and spleen as did the former editions.

It is a great and worthy monument. One looks in vain for novelty or for individual preference, but for sanity and clarity and for simple surgical integrity, it will be hard to find its equal. Once more, may we quote the Preface.

"Surgery today is being practised by too many light-hearted and incompetent surgeons who have neither sought in due service to acquire a mastery of their craft nor have learned from the experience gained by long association in hospital work when an operation should be done when left undone how made safe, how made to fall lightly upon a patient already afflicted it may be by mental no less than by physical distress.

"Of all the temples in the world none is more sacred than the operation theatre. No High Priest nor any acolytes engage in nobler ministrations than do the surgeon and each one of his assistants. Nothing base should dwell in such a temple and—

"As this temple waxes

"The inward service of the mind and soul

"Grows wide within

"Since no joy is greater than that of service in such a sanctuary no responsibility is greater than that which falls daily to our lot"

Bravo, Moynihan!

J. E. J.

sciousness of their inseparable relation to each other so far as life and health are concerned. Let us endeavor to so interpret and utilize the mental and physical findings that the greatest health benefit may accrue to the *whole child*, in doing which we shall make our greatest contribution to individual happiness and to national greatness.

SYMPTOMS OF MENTAL DISTURBANCES AMONG CHILDREN

There is probably no phase of medicine in which we find a wider range or a greater variety of symptoms, often complex in character, than in the mental disturbances of childhood. There is no part of our work as physicians in which a keener discernment is necessary or a better understanding of the interrelations of body conditions and functions is so essential, to clearly understand the relation of one symptom to another and the relation of all of the symptoms to the whole case. It will often be found that each child presents an individual problem in symptomatology. The symptom problems may in fact be quite as numerous as are the cases and often as difficult of understanding. Certain symptoms may predominate and appear of the utmost importance in some cases, while in other instances the same symptoms may be absent or of little or no significance.

All possible symptoms, physical and mental, bearing upon the case must be assembled. The physician must first view them in their entirety, just as he must visualize the whole child.

By a system of exclusion and inclusion such symptoms and conditions as appear most relevant to the case can be selected for intensive consideration. The list from which such selection may be made is often a long one. It may include one or many of the following:

- 1 Over activity—mental or physical
- 2 Under activity—sullenness
- 3 Hypersensitiveness — irritability — excitability
- 4 Obstinacy—stubbornness
- 5 Vicious temper—cruelty
- 6 Tantrums—ill humor
- 7 Exaggerated importance, "Ego"
- 8 Extreme and unnatural jealousy
- 9 Malnutrition—food fads—perverted appetite
- 10 Running away—from school or home
- 11 Stealing
- 12 Lying—habitual
- 13 Sex offenses—precocious sexuality
- 14 Choreic movements
- 15 Convulsions
- 16 Lack of concentration
- 17 Inattention—indifference
- 18 Unnatural behavior, failure to enjoy the natural pleasures of childhood
- 19 Misfit at school and at play

20 Many physical habits such as bed wetting, nail biting, stammering, etc., are also expressions of mental maladjustment.

THE DUTY OF PHYSICIANS IN THE MENTAL HEALTH OF CHILDREN

Most physicians have given little or no attention to the mental health of their childhood clientele.

In far too many instances when an anxious mother seeks advice regarding some nervous or child behavior problem, she is told that "it is of no particular importance and that the child will soon outgrow it." This advice is fortunately true in most cases, and yet the exceptions that prove the rule are far too numerous and often disastrous in their endings. Leading psychiatrists tell us that many of the terminal cases that are today filling our State Hospitals for the insane had their beginning in early childhood.

We are also advised by the same authority that "960,000 children who are today in school will enter a hospital for mental diseases at some period in their lives, if the present rates for first admissions are maintained."

Is not this startling prophecy of the mental wreckage of nearly 1,000,000 school children, a challenge to the medical profession, yes and to our school authorities to organize and to act along preventive lines for the mental salvation of this vast army of boys and girls? It is estimated by those in State Hospital Service and others that in ten years, by proper preventive measures applied to children, the percentage of mental wreckage could be reduced one-half.

This mental hygiene problem as presented to us by those best qualified to judge not only imposes a great responsibility upon the medical profession but offers a wonderful opportunity to render a still greater service to humanity, and to substantially increase our practice. The obligation, as in all great medical problems in time will be met and the services rendered. The time is rapidly approaching when the family physician will fully appreciate that a tantrum may be of even greater significance to the future of the child than a rise of temperature, an accelerated pulse, a carious tooth, a discharging ear, or even a chronic appendix. It is quite as much his duty to the child and to the family to carefully study the various etiological factors that might be responsible for behavior problems, maladjusted or twisted mental cases and to advise and direct proper "mental engineering" as it is to direct the treatment of any other illness of childhood. He must endeavor if possible to find the cases early, as the longer a mental illness has existed the more difficult, as a rule, is its control. He must also appreciate that the more complicated and obscure the causes the more difficult their recognition and solution.

Should he not be fully satisfied with his own judgment, as to diagnosis or treatment, he should

watches the mental and physical health of the expectant mother and who begins early in infancy to lead the child along quiet normal lines of mental development. Normal physical and mental parenthood is conducive to normal physical and mental babyhood. This is the rule to which, of course, there are some exceptions.

The mental atmosphere of the home is reflected in the mental attitude of the child. Within the home we often find many disturbing influences on the mental health of the child. He may not get sufficient sleep, under favorable conditions, without which normal mental health cannot be expected. It must be remembered "that midnight sleep in childhood is far more conducive to mental health than is midnight oil." He may not receive a well balanced diet, the basic necessity of all developments, mental and physical. He may be subject to nervous, irritating, fault finding or other depressing influences of parents, or some other member of the family, in the midst of which he can hardly be expected to escape the contagiousness of such a condition. He may not be happy in his home, so essential in childhood, or receive the encouragement or assistance so often needed and so greatly appreciated by children. He may not understand his parents or they him, and in the confusion of his mind he drifts away to seek advice elsewhere. These and other serious conditions might exist within the home. To properly understand and control them is one of the greatest responsibilities of parenthood.

There are also within the school many factors that materially influence the mental health of children. These may be due to an *overloaded curriculum* imposing on children more subjects, and longer assignments than it is possible for them to carry, or to a *school day so long*, often ten hours or more, as not to afford sufficient time for rest and recreation, or to *attempting to teach* children things they cannot learn and do not like rather than those within their understanding, of greater practical value and more to their liking, or to a *nervous, unsympathetic, irritable teacher*, who fails to understand the psychopathic child or to give him assistance and encouragement when needed, or to *lack of co-operation of school and home*, so essential for the success of both teacher and pupil, or to *bad housing conditions*, such as lighting, heating, ventilation, etc., so necessary for both good physical and mental health, or to *failure of the school authorities* to maintain a system of school medical inspection and health service that will recognize and properly deal with early manifestations of mental disturbances, or to *failure to make children contented and happy* in their school work. A bright, cheerful, happy school environment will do much

for the mental health of children. To make a child feel that he is successful often aids in many maladjustments in school.

The mental health of a child is also largely influenced by his companionship. Children even more than adults are creatures of imitation. For that reason their language and habits furnish to parents a reliable index as to the company they keep. In their early formative and receptive age they are highly susceptible to exposure to good or bad habits, mental, physical, social or otherwise, which to many are just as contagious as measles and more disastrous and lasting in their results. Parents can and should largely select and direct the companionship of their children. To do this and to do it wisely will often prevent many of the mental pitfalls that happen to an innocent and unsuspecting child.

A systematic effort should be made in the medical profession to meet and deal with this, one of the greatest problems in the mental health of childhood.

PHYSICAL AND MENTAL EXAMINATIONS

In the examination of mental hygiene cases it is not sufficient to simply examine as it were the physical side of the child. The examination must embrace the whole child. It must furnish a composite picture of the mental and physical condition of the child. No one simple aspect of the case however complete in itself will suffice. It must rest upon a careful scientific medical investigation and evaluation of the individual case, aided by the teacher whose opinion is worth much, by the parents whose cooperation is indispensable, by the psychologist whose findings are of the utmost importance, by the nurse whose social and other services contribute much to an intelligent understanding of the case, and by others who can often be of material assistance. In making such an examination we must never forget, as so often happens, that the brain is a physiological part of the body. Let us remember that the health and functions of the brain should be as carefully tested and safeguarded as are those of the eyes, ears, nose, digestive tract or any other part of the human mechanism, that in its relation to the rest of the body there is no part of the human anatomy so vitally interdependent or so functionally interrelated as is the brain, that the brain never functions independently, but always in unison with the rest of the body, that neither can function without the other mentally or physically, that both are highly sensitive to and sympathetic with conditions, good or bad, within or without each other, that when we strengthen one we strengthen the other, that to weaken one weakens the other, that to strengthen both strengthens the whole organism, the human body. When we as physicians think of one let us think of both in their completeness. When we examine or deal with either let us do so with a full con-

2 *To the administering educator* that he may realize that education is but another term for *Mental and Physical Development*, that equal consideration may be given to mental and physical growth as to intellectual development

3 *To the class room teacher*, whose knowledge of the child's mental capacity and habits is often more complete and more reliable than is that of the parent, to aid in mental adjustment

4 *To all*, that every person and every agency interested in child welfare may cooperate to insure to childhood, safe, sane and successful direction in mental health

In conclusion let me appeal

1 *To the general practitioner*, of whom we need more, to the family physician whose depleted ranks should be quickly recruited, to the medical

profession whose regrettable lack of interest in and appreciation of health promotion often furnish a sad reflection on medical leadership, to become that for which their training and experience qualify them, the custodians of the mental and physical health of the human family

2 *To the psychiatrist*, by some thought to be the greatest of all medical specialists, to become that for which his intimate knowledge of the interrelation of mind and body qualify him, a more aggressive and helpful leader in the medical field of mental hygiene, especially in its application to childhood

3 *To the psychologist*, whose findings, like those of the bacteriologist are often indispensable to a correct diagnosis of the case, to cooperate with physicians, parents, teachers, nurses, pupils and others, that the best results may be obtained

DOCTORS NEED THE HEALTH VIEWPOINT

By FLORENCE A. SHERMAN, M.D., ALBANY, N. Y.

DURING the past sixteen years, in connection with health educational work, in this and another state, I have had a part in the endeavor to put over a health program through school medical inspection. As I review the work done, I believe that decided progress has been made, but that we have far from accomplished what we should or could, and I have come to the conclusion that one of the main reasons for this has been the lack of the health viewpoint of the doctor (nurse and teacher). There are some 1,600 doctors in this state doing school health work. Some of them are hygienists and some of them are not. Those who are, are putting over a health program. Those who are not are failing to do so. I have reached the conclusion that the doctor must begin his health program with himself. He must endeavor to be physically fit, believe in, embody and radiate health in connection with things he is trying to do. In other words, he must practice what he preaches. I have not always held this viewpoint, but I assure you I do today and it is the basis upon which I am endeavoring to work. I believe the doctor should be a *health teacher in every contact he makes*. It matters not in what special field he is working—public health, school health, private practice—health direction in the colleges, normal schools or industries, the obligation is the same in connection with the wonderful profession which he represents. Teaching boys and girls and men and women health laws how to live wholesomely and health-

fully, in order to measure up to their highest state of efficiency, *should* be the large part of the work of the doctor of today. I believe it is a much *finer* job to show people how to *keep well*, than it is to cure them after they *become sick*. It takes a clever doctor to do this! We must all learn to think in terms of *health* and not in terms of *disease*, and give this message and impression to those with whom we have to do. We must make health contagious through example as far as possible. We are all familiar with what a doctor who is vigorous and vital does for his patient, the psychology of this is far reaching in giving impetus to and in clinching the things we are working for. The program today is a *health program*. *Prevention* not *Cure*. This should be stressed in our Medical Colleges more than it is. Physical, mental and moral fitness are obligations in connection with the high purpose of our profession. I believe we may well ask ourselves these questions:

1 Have I acquired, and am I giving the health viewpoint?

2 Am I physically fit?

3 Am I having and urging period health examinations?

4 Am I practicing what I preach?

5 Am I a good representative of health?

In conclusion, may I express the belief that no matter how earnestly we seek to give others these health measures, the greatest recommendation will be our own observation and embodiment of them.

seek the advice of the psychiatrist or neurologist. He will find, much to his gratification, that most cases of mental disturbances in children, if properly understood and treated, yield far better results than do similar conditions in adult life.

SUGGESTIONS TO THE GENERAL PRACTITIONER OR THE FAMILY PHYSICIAN FOR THE CONSERVATION OF THE MENTAL HEALTH OF CHILDREN

1 Take more professional interest in the mental health of the children of the families of your clientele. To do this also means their general health, for health of body in most cases means health of mind.

2 Establish a consultation relationship with some good psychiatrist or neurologist, and use him as you would a good oculist, a good surgeon or any other good specialist.

3 The New York State Hospital Commission and the New York State Commission for Mental Defectives hold psychiatric clinics throughout the State at regular intervals for diagnostic and consultations purposes. Familiarize yourselves with these clinics and utilize them when necessary for all cases where similar services are not available from other sources. The State Hospitals also welcome your bringing cases to them for consultation and advice.

4 The general practitioner has well been called the *untrained psychiatrist*. He is indeed the nearest we have to the trained psychiatrist, to whom in this work he stands next. By his general medical training and experience, by his familiarity with much of the psychology of the child, of the parents and of the home, by his intimate knowledge of many interrelated factors bearing on the case, he next to the psychiatrist is best equipped to handle many of the more simple and less complicated mental health problems. He in fact with proper training will make the most successful psychiatrist. There is much indeed to encourage the general practitioner to at least make a beginning in this important and fascinating field of *medicine*. To do so would bring to him much of satisfaction in the success with which he would meet, and offer to him an opportunity to render a still further and much needed service to many patients who might otherwise seek advice elsewhere. Let us hope that physicians will take such a deep interest in this special work and do it so well that no occasion or necessity will arise for the development of another specialist, a neuropsychiatrist or a psychopractitioner as it were who thinks he can do the things equally as well or even better than *can be done* by the medical profession.

5 *The general practitioner should realize that both physical and mental health must have the right kind of medical guidance in his community to be successful.*

To successfully deal with mental hygiene cases it is imperative to have the interest and cooperation of the family physician. He must be made

to feel that it is his case and to him must be given credit for its successful management.

He can do much to see that his community is provided with proper medical guidance for mental hygiene cases. Should he be unable to furnish it himself he should if possible see that it is made available and his people should know by whom.

6 Physicians should take an active interest in the educational program in the schools in their community. They should establish and maintain an advisory relationship with the school authorities especially the medical inspector regarding matters of physical and mental health. They should explain to school authorities the significance of mental hygiene, stress its importance and urge its proper recognition and support. They in cooperation with the medical inspector should act as health consultants. The medical inspector should be a contributor to and not a competitor with the family physician. The family physician should be a cooperator with the medical inspector and a contributor to the efficiency of school medical inspection.

ADVANTAGES OF THE GENERAL PRACTITIONER OR FAMILY PHYSICIAN IN MENTAL HYGIENE CASES

The family physician sees the cases earlier when most can be done for them and more often than is possible for the specialist or psychiatrist.

The family physician is more familiar with parental and environmental conditions and can best interpret their relation to the mental status of the child.

He may be acquainted with the prenatal history of the child, often of vital importance to a full understanding of the case.

He, better than anyone else, can get confidential family history and can best deal with the whole family or even the neighborhood as is sometimes necessary.

He, next to the parent, is the most deeply interested in the welfare of the child whose confidence he enjoys, a valuable asset in dealing with such cases.

He best can evaluate the various physical and other findings and make their most effective application to the case.

When psychiatric advice or other assistance is needed, as is often the case, the family physician whose services are always available, is the logical one to select such consultants and is the best fitted to follow the course agreed upon.

CONCLUSIONS

My appeal then is

I To parents, whose responsibility is greatest, to appreciate the vital need of prompt and proper attention to all nervous symptoms of childhood and to lend every possible assistance to the end that their children may receive proper guidance in their mental health problems.

in January, 1925, to be followed in regard to the control of communicable diseases among its students and teaching staff, and one of the University physicians was commissioned as a deputy city health officer to enforce this code, the details of which had been unofficially followed since 1912

This code substitutes for isolation of non-immune student contacts, a period of observation by the University medical advisers. The non-immune contacts are permitted to attend their classes and other gatherings providing they carry out the terms of the observation period. Failure to obey these terms results in the student being isolated in the University Infirmary for the remainder of the observation period. This code applies also to the teaching staff. Co-operation in general is excellent. Last year one of our instructors served a sentence in the Infirmary for failure to comply with the code and the efforts of the full professors in his department failed to secure his release or even mitigation of his sentence. Because of these "teeth" in the code it is readily administered.

The code also specifies the length of quarantine of the communicable diseases, conditions necessary for discharge from quarantine, who shall visit the ill persons, etc.

Under this type of regulation, our non-immune contacts of chickenpox must report to a medical adviser every other day throughout a period of 22 days from the last day of contact. German measles—every 2 days throughout a period of 21 days from last day of contact. Scarlet fever—every day throughout a period of seven days from last day of contact, and so on for the entire group of communicable diseases. The contact is instructed in regard to the early signs and symptoms of the disease to which he has been exposed and told to report to the medical adviser at once should he note any of these signs or symptoms on a day on which he was not required to report.

The noses and throats of our diphtheria contacts are immediately cultured. Last year a case of diphtheria occurred in a sorority house and within twenty-four hours our cultures showed a carrier case in the same house. The case and the carrier were isolated and no further cases developed.

In the twelve years that this system of observation of non-immune contacts has been exercised in lieu of exclusion from college classes, we have been relatively free of secondary and tertiary contact cases in all diseases except chickenpox and mumps. Of the two, mumps is the worse. By observation of the mumps contacts we detect the parotitis early but apparently not early enough to prevent its spread to others. Of five non-immune mumps contacts in one fraternity house, four eventually acquired the disease at intervals

of 15 to 22 days. If mumps should ever become epidemic at Cornell University, I feel that we would be justified in excluding our non-immune contacts from classes, rather than observing them according to our present system.

As soon as a communicable disease case has been removed from a house to the Infirmary, I begin disinfection of the contents of the rooms which the case has occupied.

The sheets, pillow cases, pajamas, towels, washcloths and handkerchiefs are boiled in water for fifteen minutes before being sent to a public laundry.

The quilts, blankets, mattress, pillows and bathrobe are brushed and exposed to the outdoor air and sunlight for a period of at least eight hours.

The windows are opened and the rooms thoroughly aired for eight hours.

All furniture, woodwork and the floor are thoroughly washed with soap and warm water.

Rugs and upholstered furniture are properly cleansed with a vacuum cleaner or thoroughly brushed and beaten in the open air.

The washbowls are filled with a solution of bichloride of mercury or lysol and allowed to remain so for two hours before draining the disinfectant into the sewer.

As to whether this terminal disinfection prevents further cases of illness or not, I cannot say, yet I feel safer in so doing, and I believe it is of educational value to the other students in the house.

Our entire system of control of communicable diseases is of the greatest educational value to the students concerned and its details give the medical advisers ample opportunity to teach the fundamentals of epidemiology. A synopsis of the code printed on large size paper have been distributed to all fraternity and sorority houses and dormitories.

I believe that the recital of the history of communicable diseases at Cornell University during the past college year will serve as sufficient proof of the efficiency of the system in controlling such diseases by finding early the secondary cases among the contacts observed.

Chickenpox	2 cases	13 contacts	0 secondary cases
Diphtheria	1 case	12 contacts	0 secondary cases
Encephalitis			
Lethargica	4 cases	58 contacts	0 secondary cases
German Measles	9 cases	92 contacts	2 secondary cases
Mumps	42 cases	397 contacts	12 secondary cases
Scarlet Fever	7 cases	152 contacts	0 secondary cases
Whooping Cough	1 case	0 contacts	0 secondary cases
Total Communicable Diseases exclusive of catarrhal diseases of respiratory tract	66 cases	724 contacts	14 secondary cases

THE CONTROL OF COMMON COMMUNICABLE DISEASES AT CORNELL UNIVERSITY *

By A. G. GOULD, M.D.,

Assistant Professor of Hygiene and Assistant Medical Adviser, Cornell University, Ithaca, N. Y.

FOR at least ten years there has not been an excessive amount of communicable diseases at Cornell University, if we exclude the catarrhal diseases of the respiratory tract. Their comparative absence, however, should not and has not decreased our efforts to work out suitable steps towards their control. One can readily see that in a student body of five thousand and a faculty community of several thousand more people, in close contact in class-rooms and in their social and fraternity lives, how easily an epidemic of disease might arise. In such a case the source of the infection might not be in the university community itself but among the inhabitants of the "lay" part of the town or even in some community hundreds of miles distant visited by one of our athletic teams and its student followers, or by a student on leave of absence for social or business purposes. I have noted for several years that most of our so-called "children's disease" cases arise from infection acquired during a vacation either at Thanksgiving, Christmas or Easter time. For several weeks following such vacations, cases of illness arising in the student body are carefully scrutinized for signs of contagious diseases.

I am taking it for granted that you know our campus drinking water comes from a watershed patrolled and inspected by a University officer and that daily water analyses are made of water which has passed through the University filtration and chlorination plant.

The University food-handlers receive a physical examination at least once a year and their feces are examined by the state department of health for the bacilli of typhoid and paratyphoid fevers and dysentery.

All of the milk sold in the city of Ithaca comes from tuberculin tested herds and much of it is pasteurized in addition.

We have recently put into action a regulation that all students matriculating in the University must present a satisfactory certificate of vaccination against smallpox, this certificate to be considered satisfactory only if it certifies to a successful vaccination within five years or certifies that at least three unsuccessful attempts have been made within the same period. Last year we ran a successful vaccination campaign for students already matriculated and who had not been successfully vaccinated within a five year period. Many vaccinoïd reactions resulted while others showed immune reactions.

Students may receive typhoid vaccine if they wish.

When a case of communicable disease occurs in the student body or faculty, a list of contacts is secured from the ill individual. If he lives in a fraternity house, it includes all of the members eating or sleeping there and the waiters. If he lives in a rooming house or dormitory the list includes all of those who have been in contact with him during the period of illness. To this list are added the names of other contacts in class-rooms, on athletic teams if the sick person is an athlete, partners at dances, etc. In preparing this list of contacts I realize that frequently I make it too comprehensive, yet I prefer to err in that manner, rather than to make my contact list too meager. This list of names obviously contains some who are immune to the disease in question. The next logical step is then to separate the immune and non-immune contacts. I am aided in the separation by individual history cards which each student makes out during his Freshman year and leaves on file in our office. On these cards, each student checks the names of the diseases which he has had.

Errors naturally occur but as a whole the checking is very satisfactorily done. By referring to these cards I am able to decrease my list of names to those who are non-immune contacts.

The New York State Department of Health has published and enforces certain rules for the isolation and exclusion from school of children suffering from communicable diseases and of children who are non-immune contacts.

About twelve or thirteen years ago the question arose as to whether Cornell University was a school and its students school-children. If so, they must be governed by these state department of health rules in regard to communicable diseases. That would mean that the non-immune contacts of a case of measles would have to remain away from college classes for 14 days. If the disease was chickenpox, they would have to isolate themselves 20 days and so on for the various communicable illnesses.

This mode of procedure seemed rather stiff for college students. Probably some of our so-called non-immune contacts were immune and whether immune or not, to miss two or three weeks of college classwork would invariably result in a poor term of scholastic work if not complete failure.

With the approval of the New York State Department of Health, and others, a sanitary code for Cornell University was devised and adopted.

* Read at the sixth annual meeting of the American Student Health Association, New York City, December 29, 1925.

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This code substitutes for isolation of non-immune student contacts, a period of observation by the University medical advisers. The non-immune contacts are permitted to attend their classes and other gatherings providing they carry out the terms of the observation period. Failure to obey these terms results in the student being isolated in the University Infirmary for the remainder of the observation period. This code applies also to the teaching staff. Co-operation in general is excellent. Last year one of our instructors served a sentence in the Infirmary for failure to comply with the code and the efforts of the full professors in his department failed to secure his release or even mitigation of his sentence. Because of these "teeth" in the code it is readily administered.

The code also specifies the length of quarantine of the communicable diseases, conditions necessary for discharge from quarantine, who shall visit the ill persons, etc.

Under this type of regulation, our non-immune contacts of chickenpox must report to a medical adviser every other day throughout a period of 22 days from the last day of contact. German measles—every 2 days throughout a period of 21 days from last day of contact. Scarlet fever—every day throughout a period of seven days from last day of contact, and so on for the entire group of communicable diseases. The contact is instructed in regard to the early signs and symptoms of the disease to which he has been exposed and told to report to the medical adviser at once should he note any of these signs or symptoms on a day on which he was not required to report.

The noses and throats of our diphtheria contacts are immediately cultured. Last year a case of diphtheria occurred in a sorority house and within twenty-four hours our cultures showed a carrier case in the same house. The case and the carrier were isolated and no further cases developed.

In the twelve years that this system of observation of non-immune contacts has been exercised in lieu of exclusion from college classes, we have been relatively free of secondary and tertiary contact cases in all diseases except chickenpox and mumps. Of the two, mumps is the worse. By observation of the mumps contacts we detect the parotitis early but apparently not early enough to prevent its spread to others. Of five non-immune mumps contacts in one fraternity house, four eventually acquired the disease at intervals

of 15 to 22 days. If mumps should ever become epidemic at Cornell University, I feel that we would be justified in excluding our non-immune contacts from classes, rather than observing them according to our present system.

As soon as a communicable disease case has been removed from a house to the Infirmary, I begin disinfection of the contents of the rooms which the case has occupied.

The sheets, pillow cases, pajamas, towels, washcloths and handkerchiefs are boiled in water for fifteen minutes before being sent to a public laundry.

The quilts, blankets, mattress, pillows and bathrobe are brushed and exposed to the outdoor air and sunlight for a period of at least eight hours.

The windows are opened and the rooms thoroughly aired for eight hours.

All furniture, woodwork and the floor are thoroughly washed with soap and warm water.

Rugs and upholstered furniture are properly cleansed with a vacuum cleaner or thoroughly brushed and beaten in the open air.

The washbowls are filled with a solution of bichloride of mercury or lysol and allowed to remain so for two hours before draining the disinfectant into the sewer.

As to whether this terminal disinfection prevents further cases of illness or not, I cannot say, yet I feel safer in so doing, and I believe it is of educational value to the other students in the house.

Our entire system of control of communicable diseases is of the greatest educational value to the students concerned and its details give the medical advisers ample opportunity to teach the fundamentals of epidemiology. A synopsis of the code printed on large size paper have been distributed to all fraternity and sorority houses and dormitories.

I believe that the recital of the history of communicable diseases at Cornell University during the past college year will serve as sufficient proof of the efficiency of the system in controlling such diseases by finding early the secondary cases among the contacts observed.

Chickenpox	2 cases	13 contacts	0 secondary cases
Diphtheria	1 case	12 contacts	0 secondary cases
Encephalitis			
Lethargica	4 cases	58 contacts	0 secondary cases
German Measles	9 cases	92 contacts	2 secondary cases
Mumps	42 cases	397 contacts	12 secondary cases
Scarlet Fever	7 cases	152 contacts	0 secondary cases
Whooping Cough	1 case	0 contacts	0 secondary cases

Total Communicable Diseases exclusive of catarrhal diseases of respiratory tract
66 cases 724 contacts 14 secondary cases

THE CONTROL OF COMMON COMMUNICABLE DISEASES AT CORNELL UNIVERSITY*

By A. G. GOULD, M.D.,

Assistant Professor of Hygiene and Assistant Medical Adviser, Cornell University, Ithaca, N. Y.

FOR at least ten years there has not been an excessive amount of communicable diseases at Cornell University, if we exclude the catarrhal diseases of the respiratory tract. Their comparative absence, however, should not and has not decreased our efforts to work out suitable steps towards their control. One can readily see that in a student body of five thousand and a faculty community of several thousand more people, in close contact in class-rooms and in their social and fraternity lives, how easily an epidemic of disease might arise. In such a case the source of the infection might not be in the university community itself but among the inhabitants of the "lay" part of the town or even in some community hundreds of miles distant visited by one of our athletic teams and its student followers, or by a student on leave of absence for social or business purposes. I have noted for several years that most of our so-called "children's disease" cases arise from infection acquired during a vacation either at Thanksgiving, Christmas or Easter time. For several weeks following such vacations, cases of illness arising in the student body are carefully scrutinized for signs of contagious diseases.

I am taking it for granted that you know our campus drinking water comes from a watershed patrolled and inspected by a University officer and that daily water analyses are made of water which has passed through the University filtration and chlorination plant.

The University food-handlers receive a physical examination at least once a year and their feces are examined by the state department of health for the bacilli of typhoid and paratyphoid fevers and dysentery.

All of the milk sold in the city of Ithaca comes from tuberculin tested herds and much of it is pasteurized in addition.

We have recently put into action a regulation that all students matriculating in the University must present a satisfactory certificate of vaccination against smallpox, this certificate to be considered satisfactory only if it certifies to a successful vaccination within five years or certifies that at least three unsuccessful attempts have been made within the same period. Last year we ran a successful vaccination campaign for students already matriculated and who had not been successfully vaccinated within a five year period. Many vaccinoid reactions resulted while others showed immune reactions.

Students may receive typhoid vaccine if they wish.

When a case of communicable disease occurs in the student body or faculty, a list of contacts is secured from the ill individual. If he lives in a fraternity house, it includes all of the members eating or sleeping there and the waiters. If he lives in a rooming house or dormitory the list includes all of those who have been in contact with him during the period of illness. To this list are added the names of other contacts in class-rooms, on athletic teams if the sick person is an athlete, partners at dances, etc. In preparing this list of contacts I realize that frequently I make it too comprehensive, yet I prefer to err in that manner, rather than to make my contact list too meager. This list of names obviously contains some who are immune to the disease in question. The next logical step is then to separate the immune and non-immune contacts. I am aided in the separation by individual history cards which each student makes out during his Freshman year and leaves on file in our office. On these cards, each student checks the names of the diseases which he has had.

Errors naturally occur but as a whole the checking is very satisfactorily done. By referring to these cards I am able to decrease my list of names to those who are non-immune contacts.

The New York State Department of Health has published and enforces certain rules for the isolation and exclusion from school of children suffering from communicable diseases and of children who are non-immune contacts.

About twelve or thirteen years ago the question arose as to whether Cornell University was a school and its students school-children. If so, they must be governed by these state department of health rules in regard to communicable diseases. That would mean that the non-immune contacts of a case of measles would have to remain away from college classes for 14 days. If the disease was chickenpox, they would have to isolate themselves 20 days and so on for the various communicable illnesses.

This mode of procedure seemed rather stiff for college students. Probably some of our so-called non-immune contacts were immune and whether immune or not, to miss two or three weeks of college classwork would invariably result in a poor term of scholastic work or in complete failure.

With the approval of the New York State Department of Health, and others, a sanitary code for Cornell University was devised and adopted.

* Read at the sixth annual meeting of the American Student Health Association, New York City, December 29, 1925.

frequently spring from the numerous small masses of aberrant salivary gland tissue constantly found in the lips, lying between the mucous membrane and the orbicularis muscle. They are of varying density owing to mixed proportions of glandular, fibrous, cartilaginous and myxomatous tissue. They grow slowly, are encapsulated, but may cause deformity, or undergo malignant degeneration, forming the rarer type of malignant tumor of the lip.

Epithelioma sometimes develops from the bite of an animal or an insect. It is a constant claim that it develops from a point of irritation, a jagged tooth injuring the skin, the irritation of a pipe on the lips, the heat from smoking, the irritation of nicotine, etc. In fact, it is reasoned that the tongue and mouth are common sites of malignancy because of the wide possibilities of irritation. Prolonged chewing of any irritating substance may cause a condition bordering on malignancy. In India, cancer of the tongue and mouth is of relatively frequent occurrence in consequence of the chronic aggravation produced by the chewing of the betel nut. Perhaps the most frequent cause of irritation arises from smoking, since the mechanical aggravation caused by the pipe or cigar often produces the incipient lesion which eventually becomes malignant. Scar tissue is more susceptible to degeneration than normal tissue, in the mouth as elsewhere. Decayed and jagged teeth, ill-fitting crown and bridge work, poorly made dental plates or repeated traumatism may create irritation from which a precancerous condition and, later, a malignant process may arise.

Jacobson includes many forms of irritation as precancerous conditions, chronic glossitis, with hypertrophy and fissuring, chronic atrophic glossitis, papillomas and ulcers, leucoplakia and ichthyosis.

Leucoplakia buccalis first appears as a bluish white or bluish red (more rarely) patch or patches on the mucosa, which are sensitive to chemical or thermal irritation. Later a pearly or milky white patch, slightly indurated, is seen on the mucous membrane of the tongue, cheeks or gums. Cracking or fissuring with ulceration are late stages, the first two frequently the result of syphilis, while any extensive ulceration usually means cancer. Microscopically the lesion shows an inflammatory process in the papillary region with secondary hyperkeratosis. The lesion is extremely rebellious to treatment and is distinctly precancerous, 30 per cent have been found to be malignant, all are potentially so.

Cancer of the lip is confined almost entirely to men, while the women who suffer from it, are, as a rule, smokers. Over 95 per cent are on the lower lip. All ages are affected, the cases on record embrace the years between 24 and 93, the average age is 54. A large group of cases were preceded by persistent chapped lips, kera-

toxis, seborrhoea or leucoplakia. This group shows a great tendency to re-occurrence of the disease after treatment.

Basal-celled epithelioma most frequently occurs in elderly people who have led an out-of-door life, such as cab-drivers, sailors, and farmers. The lesion occurs on the parts most exposed to the elements of wind, sun, cold, etc., and for this reason the face and hands are chiefly affected. X-Ray burns, from treatment over a period of time, may simulate the same weather-beaten appearance, and may lead also to the development of a rodent ulcer.

The diagnosis of epithelioma must, in many instances, be made microscopically. Gumma, leucoplakia, epithelial hyperplasia, broken-down tuberculoma not associated with pulmonary tuberculosis may all simulate carcinoma. Lupus is frequently hard to distinguish from epitheliomata, and not only that, but epithelioma commonly develops on an old lupus ulcer. Actinomycosis and blastomycosis must be excluded. Simmons has found it a safe rule that any ulcer is carcinoma until proven otherwise.

Few early cases, unfortunately, are seen by the physician. The early symptoms in a series of 187 cases passing through the Massachusetts General Hospital were as follows: "Sore or cold sore" (83 cases), "scab" (19 cases), "wart or tumor" (38 cases), "pimple, crack, blister, cut or enlarged metastatic glands." The average length of onset of symptoms was one year. The average delay in going to a physician was four to five months. The average delay before operation was one month. Thus the average total time elapsing since the onset of the symptoms was one and one-half years. The types of growth of the tumors in this series of cases was: Fungating, 21, ulcerative, 84, tumor, 34, warty, 14, miscellaneous, 19. The patient was generally in much pain and suffering, was weak and emaciated from inability to take food or liquid.

The progress made in the treatment of malignant diseases has been along the following lines: (1) In the ability to apply to the individual case that treatment, or combination of treatment, which experience has shown offers the greatest prospects of benefit or cure, (2) The earlier recognition of the disease from propaganda educating the public, and (3) Treatment of early malignant conditions.

The general factors on which the indications for treatment depend are:

- (1) Location, character, progress, extension and metastases of the tumor
- (2) Patient's general condition
- (3) Histopathology of the tumor
- (4) Training and experience necessary to make proper choice of method offering greatest possibility of cure

A realization of the fact that the patient should be given every possible chance throws

EPITHELIOMA OF THE FACE AND BUCCAL CAVITY *

By J O WETZEL, BS, MD, OSSINING, N Y

OF all epitheliomata, 70 per cent occur on the face, 6 per cent on the hand, and the balance on various other parts of the body. Of the 70 per cent on the face 20 per cent occur on the lips, 13 per cent on the eyelids, 16 per cent on the nose, and the balance on the ear, cheek, forehead, with a small percentage on the tongue and buccal walls.

Epitheliomata, or as Ewing suggests, Epidermoid Carcinomata would be a better name, are histologically of two distinct types, viz

- 1 Basal-celled epitheliomata
- 2 Squamous-celled epitheliomata

The basal-celled epitheliomata develop from the malpighian layer of the skin and are of two types, viz

- 1 The reticulated epitheliomata
- 2 The adenoid epithelioma

The reticulated form becomes the rodent ulcer. The rodent ulcer develops anywhere on the face, nose, neck or ear. It begins as a small flat papule or smooth wart and remains in that condition a long time, but breaks down into an ulcer which slowly enlarges until it may eat off a large part of the nose, ear or face. The ulcer is as a rule shallow, but there comes a time when it eats deeply until it reaches the bone or deep fascia, where it is checked for a long time, but eventually it destroys these deeper structures. This is the so-called crater-form ulcer. Like all basal-celled epitheliomata, it does not metastasize, and in that sense is not malignant. But it finally destroys the patient though it is many years in doing it.

Any basal-celled tumor, including the rodent ulcer, may at any time have a squamous-celled epithelioma engrafted on it, especially at some portion of the margin, and the rodent ulcer has a habit of healing at one point while it advances at another.

The adenoid epithelioma is a basal-celled tumor which resembles an adenoma, but it is composed of basal cells with generally a mixture of squamous cells, and not of secreting cells like the true adenomata. It, like the rodent ulcer, begins as a papule which breaks down into an ulcer which has little tendency to heal, although in the early stages frequently skins over and remains healed for a time, only to break down again. Often the ulcer edge is thickened and indurated, the center secreting a glairy liquid that crusts and becomes a black scab, which usually has a clean base under it when it is removed, but very often there is a drop of pus under it. Again the ulcer is raised above the surrounding skin, is soft and spongy, and is red or brownish in color. The adenoid epithelioma, like the rodent ulcer, does not metastasize early

and usually not at all. Its clinical course is more rapid, and it kills the patient in a much shorter time, but even then it takes several years to accomplish this end.

The squamous-celled epithelioma differs from the basal-celled epithelioma in that it is far more malignant, metastasizes early into the lymph channels and glands, and destroys the patient in much less time, though it generally requires several years to accomplish it. However, a few are rapidly fatal. They are generally single, but sometimes multiple and may be found almost anywhere on the skin. In their early stages they may be marked by erythema, seborrhoea, eczema or pruritis (Ewing). They are also of two types.

The first type appears as a warty growth in which condition it may remain for a long time, but slowly grows larger at its edges. In this stage it is quite amenable to treatment but later it spreads in size, ulcerates, and metastasizes into the neighboring lymphatics. Then treatment is a serious problem.

The other type does not begin as a wart but as a depression which early becomes fixed to the underlying tissues and ulcerates early into the lymphatics, loses its squamous-celled appearance, and takes on the aspects of a tubular carcinoma. This type is malignant, fatal, and destroys life much earlier than any other form of epithelioma.

All forms of epitheliomata, when they metastasize, do so into the nearby lymph vessels and glands, and only rarely does metastasis appear in distant organs. This is especially true of those of the face, mouth and tongue, which metastasize into the cervical and submaxillary glands. These tumors ulcerate early, become infected with pus organisms, especially streptococci, so that local or general sepsis complicates the general course. Squamous-celled epitheliomata (acanthomata) are prone to develop where the skin joins the mucous membrane, as on the lips, and it is a clinical point worth noting that if an epithelioma begins on the skin surface of the lip it is far less malignant than if it develops from the mucous surface, and it is apt to be very malignant if it develops from the inner side of the lip margin.

Cancers involving the mucous membranes of the buccal cavity may be roughly grouped into lesions involving the lower lip and the corner of the mouth, the tongue, primary lesions of the floor of the mouth, the tonsil, and in the mucous membrane covering the cheeks, the alveolar processes, the palate and the pillars. The disease in each of these anatomical structures requires separate consideration.

The so-called salivary gland tumors not in-

ably little shock and almost no pain following the operation, even in cases where large areas have been burned, as for instance, carcinoma of the breast. It seems wise to give carefully planned X-ray treatment preliminary to the removal of the malignant growth with the cautery.

Surgical diathermy by the needle method seems to have the following advantages: tumors otherwise inoperable may be attacked, the operation is more or less bloodless, the danger of metastasis is much less than with a cutting instrument, owing to the sealing of the blood vessels and lymphatic draining the parts, sterilization of the parts, there is a complete destruction of the viable and palpable malignant disease, the operation is rapid and easy, there is no surgical shock, convalescence is rapid, formation of adhesions is rare, the operation can be repeated if necessary. The disadvantages of this method are: healthy and diseased tissue are equally destroyed, the surgeon cannot see important vessels and nerves, there is danger of secondary hemorrhage when operating near large blood vessels, there is a tendency to the formation of keloid in operations involving skin surfaces.

Of the other methods of treatment it may be briefly stated that pastes and caustics are painful, inefficient and deceptive, fulgeration, coagulation necrosis with dull heat, and X-ray are not sufficient to use alone, and that a lethal dose must be given with radium or X-ray if these forces are to be used at all. Implantation of radium gives better results than surface irradiation.

The auricle is a vestigial organ, of little use, and a frequent cause of trouble, possibly because it is vestigial, and also because it stands out on the side of the head exposed to the elements. It is frequently affected by keratotic patches, and by epitheliomata either developing on these patches or arising from the more deeply situated cutaneous glands and hair follicles. Most cancers of the auricle are of the basal-celled type, and not very refractory, except when they become extensive and invade the comparatively less attainable external auditory meatus. Epithelioma of the ear, as in other situations, assumes a great variety of appearances, such as a small dry ulcer with rolled borders, a crust with a degenerated base, a cutaneous horn or an advancing cicatrizing growth. Successful irradiation would be impossible if it were not for the fact that the ear is a flap-like organ, capable of being attacked on both sides, this subjecting the growth to cross fire. This is the treatment of choice for successful cosmetic effects as well.

All the basal-celled epitheliomata are easy

to cure in the early stages. Removal with knife, actual cautery, or caustics, will cure them if done thoroughly, and even pastes will cure the most of them. Diathermy will cure them and X-ray or radium will remove them readily, and generally without any scar. The basal-celled epithelioma is the reason for the numerous quack cancer cures and furnishes the livelihood of cancer quacks, because this individual with his paste or caustic or whatever he uses does cure most of the basal-celled epitheliomata that he treats. The pain of the paste or caustic may be severe, but the patient gets rid of the tumor without being "cut" and he is satisfied. Naturally, he does not know the difference between his basal-celled epithelioma and a real cancer, neither does the charlatan for that matter, so he sends all the cancer sufferers to the charlatan that he comes in contact with, using his own case as a glowing example of cure. So where one non-malignant epitheliomata or keratosis is cured, many real cancers are tampered with and made worse, the patient's sufferings enhanced by the treatment.

The formulated procedure for radical excision of a malignancy about the jaw and mouth is the removal of the entire maxilla or mandible, in the case of the lower jaw, from the mid-line or beyond in front, to the articulation or near it in the back, together with all the soft tissues possibly invaded, in the case of the superior maxilla, the entire bone from malar to nasal attachment, orbital plate, palatal process, and soft parts possibly invaded. To this is added a block dissection of the lymphatics of the affected area. This surgical treatment might be profitably combined with coagulation necrosis at a dull heat and the use of radium. Butler (1909) found that with delay of ten days to three weeks in the removal of the lymphatics, his mortality rate was reduced from 31 per cent to 23 per cent, complications were diminished (shock, infections, metastases), and the longevity of his patients was increased.

In the treatment of cancer of the tongue, Bainbridge advises that all precancerous lesions should be removed, abnormal manifestations of irritation should be eradicated, in advanced cases, operation as radical as is compatible with life should be performed, when it is impossible to fully remove the growth, a palliative operation, with ligation of the lingual and external carotid arteries or cutting of the dental nerves, may lengthen life and alleviate suffering, in inoperable cases yeast may be held in the mouth to reduce the fetid condition, while radium, caustic or cautery may be used as palliative measures.

The surgical indications for squamous-celled epithelioma of the lip vary with Broeder's

the entire responsibility of education, prevention, early diagnosis and treatment upon the physician. What Judd has to say about carcinoma of the tongue applies with equal force to associated lesions.

(1) A reduction in the number of cases of carcinoma of the tongue depends upon the early recognition and proper treatment of precancerous lesions.

(2) Lesions of the tongue, suspected of being malignant, should be excised for diagnosis, and should not be treated locally.

(3) Improvement in the end results of treatment of carcinoma of the tongue depends on early diagnosis and proper early treatment.

(4) All the patients with operable carcinoma of the tongue should be given the benefit of surgery, including the cauterization of the local lesion and excision of the glands of the neck. Radium should also be employed in order to give these patients every possible chance.

In making the diagnosis it is not sufficient to say benign or malignant, the degree of malignancy must be definitely stated, using as an index of malignancy the cellular activity of the embryonic forms in the tumor. Broeders furnished a very useful classification of relative malignancy when he divided the epitheliomata of the lip into four classes.

(1) Three-fourths differentiated cells and one-fourth undifferentiated. No mitotic or "one-eyed" cells.

(2) Essentially equal quantities of differentiated and non-differentiated cells. Occasional mitotic figures and "one-eyed" cells.

(3) One-fourth differentiated cells and three-fourths undifferentiated. Numerous mitotic figures and "one-eyed" cells.

(4) All undifferentiated cells with numerous mitotic figures and "one-eyed" cells.

This classification furnishes the basis for choice of treatment, especially by those who do not use surgical methods. For instance, the radiologists have found that group one is resistant to radium, while it yields readily to surgical treatment. Conversely, they claim that group two, which offers a poor surgical prognosis, and groups three and four, which are most susceptible to irradiation, should always receive radiotherapy, either alone, or in combination with surgery. Their other arguments are that as previously radiated carcinoma cells do not metastasize well, there must always be an adequate preliminary radiation, also, facilities for the use of radium emanations permit of a more elaborate technique with a higher percentage of cures and a better cosmetic effect. Against this the surgeon will argue that surgery fails only when the disease cannot be reached or eradicated, when there are metastases radium is not effective and surgery seldom so. Clinical cures, so called, are not backed up by follow-up records from the radium

clinics. A group four carcinoma should have surgery because we cannot afford to give precedence to any physical agent where proper surgery holds out proven opportunities for a cure. Early cancer, extensive operation, late cancer, little or no surgery.

In an effort to conciliate the above seemingly opposite views, Pancoast offers the following. The radiologist is endeavoring by every possible manner of investigation to contrive means of accomplishing what surgery has failed to do. He receives and treats the worst wrecks wrought by cancer. Surgical methods would be ideal, if some means of education could inculcate in the mind of every individual that every ulcer, fissure or keratosis of the lip persisting for several weeks, especially if showing induration, and if syphilis be excluded, is either cancerous or potentially so, and that such an area should be removed. The vast majority of lip cancers have, unfortunately, gone beyond this stage when first seen. The general run of cases as we see them may be divided into three groups, from the standpoint of methods of treatment, prognosis and statistics, as follows: preliminary lesions without any evidence of metastasis, cases presenting small, palpable nodes in the submental or submaxillary triangles, and those with advance primary lesion and large nodes in these areas or in other gland groups. Frequency of local recurrence following surgery shows that the results should be better, and surgery alone cannot be regarded as a complete method of treatment in view of our present knowledge of the results of radiation.

Cases of epithelioma that are not entirely cured by the first treatment of radium or X-ray may be greatly stimulated in their growth by a subsequent treatment. Best results in these cases follow a wide excision of the tumor, otherwise the patient succumbs. Also, the prognosis is vastly more favorable with actual cautery than with the knife. The cautery should be applied in many cases that are apparently hopelessly advanced, because this group contains a considerable number which will remain permanently well after removal with the actual cautery. The effect of the tremendous heat radiating from the cautery iron seems to extend a considerable distance beyond the tissues that are actually destroyed. The ordinary small-size soldering iron makes an exceedingly satisfactory instrument for use in this operation. It seems best to keep the cautery in contact continuously at each point for a sufficient time to get the effect of the heat at a considerable depth, rather than by simply passing the cautery back and forth quickly, which will simply destroy the tissues with which it comes in contact. The method can be applied with equal advantage to sarcoma and carcinoma. There is remark-

semination and more rapid growth. In operations for cancer of the buccal mucous membrane, a "platter" of underlying bone should be removed, together with the intact growth. No cancer tissue should be cut or handled.

In support of the soundness of the above principles, Crile cites 224 cases of carcinoma of the buccal surfaces, especially mouth, tongue and jaws, with 6 operative deaths.

In determining the relationship of cellular differentiation, fibrosis, hyalinization and lymphocytic infiltration of the tumor to post operative longevity of patients with squamous-celled epithelioma of the lip, it was found in a series of cases at the Mayo Clinic that each of the above factors should be considered as a defense, and that the presence of anyone or a combination of these factors tends to increase post-operative life.

The mortality rate of cancer of the lip, arranged according to Broeder's classification is as follows:

Group	Mortality	Percent with Disease
1	11.21	15.82
2	33.33	61.10
3	75.38	21.40
4	100	11

These figures check very closely with those obtained from other clinics.

In comparing the prognosis following radical or local operation, the following figures of Simmons are illuminating: operative mortality, 2½% on radicals, local operation only 66% well radical with no lymphadenopathy, 92% five year cures, radical with adenopathy, 34% five year cures.

Loos, Steiner and Janowsky proved that a five year period should be the standard in judging a cure from malignancy.

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classification. A conservative operation is advised for group one, depending upon size and location, while remembering that it is impossible to differentiate between an inflammatory enlargement of lymph glands and glandular metastasis by palpatory examination. The incision should not be a V-shaped in a vertical direction, because the trend of growth in cancer of the lower lip is outward and downward, and the usual metastasis is to the submaxillary rather than the submental group of glands. The tendency is to spread to the inner side rather than to the skin side. In epithelioma of groups two and three, when no glandular metastasis is present, complete removal of the cancerous area, together with a complete removal of all gland-bearing tissue from the submaxillary and submental triangles of the neck on both sides, when glandular metastasis is present, the cervical glands not being involved, and only one group of the submaxillary and submental glands involved, complete removal of the cancerous area, together with the removal of the upper superficial and deep cervical glands of that side of the neck corresponding to the metastatic growth. When two or more groups of glands or when the cervical glands are involved, complete removal of the carcinomatous area, together with a complete block dissection of that side of the neck corresponding to the involved area, sacrificing the sternomastoid, omohyoid muscles, and the spinal accessory nerve, and a dissection of the submental and submaxillary triangles of the opposite side. Although such radical surgery will often prolong life, a five-year cure is not to be expected in these cases. In epithelioma coming under group four, the killing power of the tumor is 100 per cent, and it is useless to subject these unfortunate patients to a major operation. Palliative treatment only is indicated.

Among 4,500 reported autopsies of cancer of the head and neck, in only 1 per cent were secondary foci found in distant organs or tissues. Death results from local and regional development of the disease, and not by distant invasion. The collar of lymphatics about the neck forms an almost impossible barrier through which cancer rarely penetrates, and every portion of the barrier is readily accessible to the surgeon.

As far as metastatic dissemination is concerned, therefore, cancer of the head and neck presents a far more favorable outlook than does cancer of the breast, with its thoracic and abdominal metastases, or cancer of the stomach or intestines with its inaccessible retroperitoneal and liver metastases.

Within the lymphatic collar, because of the rich supply of lymph nodes and their connecting channels, metastases are rapidly disseminated,

although cancer of each part of the head seems to follow a law of its own so far as its primary extension is concerned. Thus, cancers of the skin, of the mucous membrane of the cheeks, of the mucous membrane of the edges of the jaw, usually do not metastasize, cancers of the lips almost uniformly metastasize to the lymphatic glands under the jaw, cancers of the floor of the mouth usually metastasize in the glands of the same side. Paired organs or distinctly one-sided foci usually metastasize regularly, while unpaired organs, as the tongue, or mesial tissue, such as the middle of the lip, metastasize irregularly and widely. For example, a marginal cancer of one side of the tongue may metastasize to the glands of the opposite side, although usually low down and towards the clavicle, although the metastasis may occur at any site, high or low, on the right or the left side.

This gives us the first surgical principle—removal en bloc of the pertinent lymphatic glands. Thus, early cancer of the mucous membrane of the gingivae or cheek which metastasizes late does not demand excision of the glands, while cancer of the lip, however early, demands the complete removal of all lymph nodes which drain the involved area, cancer of the tongue or lip calls for complete excision of the glands of the neck on both sides. Cancer of the jaws, which metastasizes rarely, and usually on the side of the lesion demands a less radical operation.

The second surgical principle is suggested by the fact that the most common cause of death after operations which involve the mouth is bronchopneumonia, resulting from the inhalation of blood or of wound secretion. This should always be prevented. Scrupulous hemostasis during operation, tubage and gauze packing of the pharynx, anesthetic per nares with rubber tubes, intralaryngeal catheterization, lightest possible anesthesia in combination with local anesthesia, no ether, specially trained nurses.

The third surgical principle is the prevention of a resowing of the cancer by a wide excision and the control of hemorrhage. Hemostasis may be secured by a preliminary ligation of the lingual, or a dry field may be insured by the employment of a mattress suture in a wide zone around the focus. The primary focus may be destroyed by cautery or removed by excision. Local excision of only the primary focus of the tongue, lip and floor of the mouth, leaving the regional lymphatic glands is as ineffectual as excision of the breast, without removal of the regional glands. Excision of individual lymphatic glands not only does not afford permanent cure, but is usually followed by greater dis-

semination and more rapid growth. In operations for cancer of the buccal mucous membrane, a "platter" of underlying bone should be removed, together with the intact growth. No cancer tissue should be cut or handled.

In support of the soundness of the above principles, Crile cites 224 cases of carcinoma of the buccal surfaces, especially mouth, tongue and jaws, with 6 operative deaths.

In determining the relationship of cellular differentiation, fibrosis, hyalinization and lymphocytic infiltration of the tumor to post-operative longevity of patients with squamous-celled epithelioma of the lip, it was found in a series of cases at the Mayo Clinic that each of the above factors should be considered as a defense, and that the presence of anyone or a combination of these factors tends to increase post-operative life.

The mortality rate of cancer of the lip, arranged according to Broeder's classification is as follows:

Group	Mortality	Percent with Disease
1	11 21	15 82
2	33 33	61 10
3	75 38	21 40
4	100	11

These figures check very closely with those obtained from other clinics.

In comparing the prognosis following radical or local operation, the following figures of Simmons are illuminating: operative mortality, 2½% on radicals, local operation only 66% well radical with no lymphadenopathy, 92% five year cures, radical with adenopathy, 34% five year cures.

Loos, Steiner and Janowsky proved that a five year period should be the standard in judging a cure from malignancy.

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STRANGULATED INGUINAL HERNIA IN INFANTS

By FREDERICK S WETHERELL, MD, SYRACUSE, N Y

A REVIEW of the literature on inguinal hernia in infants indicates that opinions differ regarding the proper method of treatment, and that strangulation is not as rare an occurrence as a casual survey of the literature might indicate. It is the purpose of this paper briefly to outline the trend of the literature on this subject, to report a case of strangulated inguinal hernia, and two cases of temporary incarceration, and to arrive at a conclusion regarding the advisability of radical operation in nonstrangulated as well as strangulated hernia.

Although operation has long been generally conceded to be the only means of curing hernia in adults, conservative methods were employed almost exclusively in treating hernia in infants until late in the eighties. At the Surgical Congress of 1888 there was a heated discussion on the relative merits of radical and conservative treatment, the English and French surgeons championed surgery, while the Germans adhered to the old methods. About 1900 the majority of surgeons of all countries had agreed to the necessity of radical operation for children in the first and second years. Although many cases have been reported illustrating the excellent results to be expected following operation, opinion is still divided as to the advisability of radical or conservative therapy, and even those authorities who are strongly in favor of surgery do not agree as to the age most suitable for interference.

From my own experience, and that of writers who have operated on large series of cases of inguinal hernia in infants, it would seem that radical operation is the method of choice and that it may safely be performed at any age. In 1902, the mortality rate for operation following strangulation was 23 per cent, in 1913, it was variously estimated at from 3 to 10 per cent. Since then, the statistics of many surgeons who have operated early on large series of cases, including both strangulated and non-strangulated hernia, reveal an average mortality of 0.5 per cent or less.

In a series of 1,000 operation performed by Herzfeld there was only one death, the infant died on the table before operation was commenced, apparently from status lymphaticus. Other authors who report excellent mortality records are MacLennan, 522 cases with no deaths, Spitzzy, 220 cases, and Ranft, 61 cases with no deaths attributable to operation.

Time, as well as improved aseptic methods, is an important factor in the prognosis. According to Flament, the mortality of untreated strangulation in infants is 37 per cent after the first twenty-four hours, 54 per cent after forty-eight hours, and 78 per cent after seventy-two hours.

Strangulation of inguinal hernia in infants and young children is of comparatively infrequent occurrence. Nussbaum, in twenty-five years' experience with 54,000 children, observed only two cases. In a study of 138,741 cases at nine large German clinics, Stern noted one case of incarcerated hernia in children for every 108 herniotomies in adults. In a consecutive series of 1,500 operations Herzfeld found true strangulation in only three. Fuld reported one case among 1,200 children examined at the Children's Clinic for the Ruptured and Crippled during one year. Porter and Carter believe that strangulated hernias constitute from 5 to 7 per cent of all hernias encountered in the very young. Krause is practically alone in reporting the incidence of strangulation as high as 10 per cent. He believes that in many cases the strangulation disappears spontaneously, and so is not recorded in the surgical statistical reports.

With regard to the average age at which strangulation appears, there is quite general agreement. It seems to be observed most commonly in the first year, but particularly during the first six months. Telford, who collected 112 cases in infants under six months, found that as the age in months increased there was a comparative decrease in the number of cases. That is, in the successive months from one to six the number of strangulation was 34, 27, 24, 12, 6, and 9. One hundred and twenty of 225 cases collected by Estor occurred in infants of six months or less. Knobloch remarks that two-thirds of strangulations occur during the first year.

When a rare condition is encountered in which the diagnosis is so palpably simple as it is in strangulated inguinal hernia in an infant, and yet has been delayed as long as four days, it becomes of great practical importance. Delays of this sort are undoubtedly due to parental ignorance, and parents, particularly in the event of an existing hernia, should be warned of the possibilities of strangulation.

In the majority of cases reported, incessant crying and screaming was the first symptom noticed, followed by vomiting, and often by retention of urine. The need, therefore, of a careful physical examination of an infant presenting these symptoms is very evident. Hydrocele and inflammation of an undescended testicle, or an inflamed gland, must be ruled out, yet, in a confusing case it might be well to cut down on the mass rather than run the risk of gangrene of the intestine.

If the strangulation has been present only a short time, manual reduction by taxis may be tried. The danger of attempting anything but the gentlest taxis must be emphasized, for the

delicate structure of the intestinal wall in an infant is easily ruptured

REPORT OF CASE

December 5, 1920, at 10 00 P M, an infant five months and six days old was seen in consultation with Dr G M Retan, of Syracuse. A diagnosis of strangulated, right inguinal hernia had been made. The infant was well nourished and had been perfectly well until the present attack. The parents had never been aware of the presence of a hernia. The child had been crying incessantly for three hours, and had vomited twice, once at nine o'clock and again at nine-thirty. An attempt at taxis, made very gently, was without result and immediate operation was advised. The baby was removed to the Syracuse Memorial Hospital and operation was performed four and one-half hours after the onset of symptoms.

The tumor, which was about 2 by 3.5 cm in diameter, had slightly increased in size since the diagnosis was first made. The sac was nearly transparent, the contents were a dark bluish red, and irreducible. An incision through the subcutaneous inguinal ring relieved the constriction, and the contents immediately improved in color. They were allowed to slip back into the peritoneal cavity.

The sac was opened, transfixed, and tied high up. Chronic catgut No 1 was used to bring the falx inguinalis over to the shelving border of the inguinal ligament. The cord was not transplanted. The very delicate external oblique aponeurosis was also sutured with chronic catgut No 1 and the skin with silkworm gut.

For a final dressing the usual gauze and adhesive plaster were used as in adults, with the exception that the adhesive was put on in four thicknesses, thus making it practically impervious to moisture. Many dressings have been devised in the attempt to prevent infection of the wound by urine, but it would seem from the result in this case that adhesive in several thicknesses furnishes a simple and efficient dressing. When the dressing was removed on the eighth day, the wound was found dry and clean. The stitches were drawn and there was no sign of wound infection.

The baby continued its nursings beginning the afternoon of the day following operation. Recovery was uneventful, and six months later the child was in excellent health with no sign of a recurrence.

Two cases have been seen within the past four months. One an infant boy of seven months, in which a right inguinal hernia had been incarcerated for four hours. The hernia slipped back soon after the child had been removed to the hospital. At operation, the following day, a sac

1¾ inches in length was found. The same procedure was followed as in the previous case.

The second of these latter cases was an infant girl of eight weeks, in which the mother had noticed a swelling in the right inguinal region the size of a large English walnut two weeks before admission to the hospital. At operation a sac 1½ inches long was found. The method recently described by R. Hamilton Russell, F A C S (Hon.), Melbourne, Australia, was followed in operating this case. It very much simplifies the operation for radical cure in infants and appeals to the author as being based on sound reasoning. The operating time is greatly shortened and not more than 15 minutes need be consumed to complete the entire procedure. Both of these infants made uneventful recoveries. There was no infection of the wound and their stay in the hospital was six days in each case.

CONCLUSIONS

Surgery is the method of choice in the treatment of strangulated or non-strangulated inguinal hernia in infants.

The mortality and prognosis following radical operation are excellent, the average death rate being 0.5 per cent or less.

Taxis does not effect an enduring cure, and is a dangerous procedure.

The only contraindications to operation are the presence of intercurrent disease and a weak, ill-nourished infant.

Some authorities consider operation on the very young infant preferable to operation during the second year, as it interferes less with the general development of the child.

Strangulation in infants and children is observed most commonly during the first year.

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TREATMENT OF ACUTE GONOCOCCUS URETHRITIS IN THE MALE

By ALBERT E MAN, M D, NEW YORK

AFTER ten years of experience and study the writer has come to the conclusion that the common practice of injecting fluid into the male urethra for the purpose of achieving disinfection is not only useless but harmful

Gonococcus infection in the male cannot be cured by germicides. In spite of the testimonials of thousands of doctors as to the merits of various silver preparations, chemical dyes, astringents, etc., when used as injections, the writer must emphatically state that "cures" of gonorrhea under such treatment are achieved in spite of, rather than because of such treatment

Without going into dry pathological data let it suffice to say that the gonococcus is inaccessible after three or four days following infection. Further, it is impossible to successfully employ a germicide of sufficient strength to achieve disinfection without damaging the urethral mucosa

It is well known that the gonococcus loses virulence after a more or less prolonged residence in the tissues. It is generally conceded that the individual harboring the gonococcus forms antibodies in his blood serum. It is also well known that rest and nutrition of the proper sort are necessary to increase the resistant powers of the body. The mechanical value of drainage in infection is well understood

In practice, the application of these well known facts will not only cure primary acute gonorrhea but will prevent complications. Gonorrheal epididymitis, prostatitis, vesiculitis, rheumatism, heart disease, are accidents usually directly traceable to the injection method of treatment

Rest must be absolute. The patient must be

put to bed. Nutrition must be maintained at a high level. Alkaline fluids in great quantities should be administered. A good, potent, freshly prepared vaccine should be administered from the beginning of the treatment. If the meatus is small and hinders drainage, perform a meatotomy. The bowels must be kept open. Sandalwood oil may be administered internally for its soothing effect. After the irritation and discharge have somewhat subsided, discontinue sandalwood and alkalies and give hexamethylene and acid sodium phosphate in large doses four times daily. Discontinue if urine becomes cloudy or bloody. Hexamethylene is impotent in any but acid urine. It is used for its prophylactic value. After the discharge has subsided, warm irrigations of 1/14000 to 1/10000 of silver nitrate may be given. This is not used for its germicidal effect but for its value as a stimulant to the urethral mucosa

When the urine is fairly clear and the discharge is negative, examine the anterior urethra with an electrically lighted urethroscope for infections of Littre's glands. They must be destroyed by the cautery if found to be infected. Results of previous attacks, such as strictures, prostatic and vesicular infections are to be searched for and treated along the usual lines accepted as effective for these conditions

In the chronic posterior cases, sounds and irrigations of 1/12000 silver nitrate prostatic and seminal vesicle massage are of accepted value

No case should be discharged as cured without exhaustive laboratory tests such as are now recognized and commonly practiced

The usual injunctions as to alcohol, spiced foods, sexual excitement and eye hygiene should not be overlooked

EDITORIALS

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For list of officers of County Medical Societies, see this JOURNAL, advertising page xiii

VACATION

The time for the long vacation is at hand, but the dates set for the fortnightly issues of the JOURNAL will continue to make their relentless appearance, and the printer's hunger for copy will be insatiable. However, editors are receiving letters asking that articles be deferred until the fall season when the readers of the JOURNAL will be in a more receptive mood.

Doctors will go to the mountains and the seashore with supplies of reading and writing material, but the magazines will remain uncut and the fountain pens will not need refilling. The JOURNAL will adopt a modest course during the

summer months and the articles, in keeping with the doctors' moods, will be contemplative rather than argumentative.

The Summer issues of this Journal will not be devoted to special topics as several of the recent numbers have been. This decision is based largely on the appeals of prospective contributors that intensive requirements of preparation be deferred until the reassembling of their office personnels in the Fall.

Accounts of medical society picnics and other social activities are especially solicited.

DEMOCRACY OF PHYSICIANS

The Medical Profession is composed of all sorts of physicians whose temperaments and talents are as diverse as those of farmers, or lawyers, or engineers. A county medical society is composed of those same doctors—the brilliant and the mediocre, the original thinkers and the imitators, the resourceful and the bookworms, the public spirited and the self-centered, the ambitious and the complacent, the active and the sluggish, the adaptable and the misfit, and so on through the list of characteristics.

Every doctor exhibits an incongruous mixture of characteristics. It almost seems that when an individual was born, one characteristic from each pair of traits was assigned to him by lot—a good one and a bad one, or possibly a succession of good ones and then a bad one which is utterly inconsistent with the rest of his characteristics.

Psychologists say that about twenty well-defined characteristics and temperaments are inheritable, and that combinations of these make up one's individuality which distinguishes him from all other persons.

The medical profession, like a manufacturing concern, is made up of two great classes—the producers and the salesmen. On the one hand are those who are dominated by a scientific instinct and are found in laboratories and research organizations, on the other hand are the physicians who sell medical service as they come in contact with the public.

The salesmen among physicians may be divided into the salaried doctors and those in private practice. Some physicians prefer to be relieved of financial responsibility. Those accept positions in departments of health, insurance companies, and lay organizations, or if they do private practice, they are known as good doctors but poor business men. Other physicians delight in business contacts and in the art of the routine practice of medicine, preferring to send their specimens to a laboratory and to call in scientific

specialists for the diagnosis and treatment of their difficult cases.

There is an element of friction and antagonism between the producing doctors and the salesmen. The salaried public health worker may call the private practitioner commercial, and the family doctor may say that the health officer is impractical. The great medical problem of the present day is to harmonize these two groups of medical men—and the Medical Society of the State of New York is doing it.

While physicians exhibit diverse traits and aspirations, yet those which are the common possession of all doctors are in overwhelming proportion—seventy-five per cent or more. Doctors may differ in twenty-five per cent of their characteristics, but there is no need that they be antagonistic in any.

The great work of the medical societies of the counties and the state has been the unification of the medical profession. The members of the societies give the leaders in each branch of medicine the permission to speak for their less informed brethren and to act as the spokesmen for those who have neither the inclination nor the talent to speak and write and act in a public capacity.

Every County Medical Society is a democracy in which there is an equality of opportunity, and a freedom for each member to act according to his talents. The great majority of its members will do little else than treat sick individuals. There will probably be one doctor who will address meetings, another who will write articles for the local papers, another who will provide entertainments for the meetings of the Society, and another who will represent the Society at conventions away from home. The Society provides an opportunity for every member to use the talent which he possesses. Diversity of characteristics no longer keeps the doctors apart—it is the basis of the strength of medical societies, in that every gift of every person may be put to use.

THE AVAILABILITY OF MEDICAL SERVICE

Every now and again some layman brings up the great need of a doctor in his community. The question crops up in the whole nation as well as New York State. It has been thoroughly investigated in New York, and the evidence is that medical services are more readily available now than ever before in practically every part of New York State. Physicians as well as stores, churches, movie theatres, and schools tend to centralize themselves in cities and county seats. The telephone and the automobile bring urban

advantages within reach of nearly all rural dwellers.

The State Department of Health and later the State Medical Society have investigated every request for medical personnel, and rarely has a need been found to induce a doctor to settle in any community that is without a doctor.

Theoretically there should be a scarcity of doctors. Almost half of the former medical schools have closed, and those that remain have reduced the number of their students. Yet New

York State seems to maintain its standard of about one doctor to every 750 people

Since there is a concentration of doctors in the cities, it would be supposed that Greater New York would have an oversupply, but the great Borough of Brooklyn—the most populous one—has about the same average as the rest of the State. Queens Borough has one doctor to 1,200 inhabitants. Only in Manhattan is the proportion one to less than 500 inhabitants.

The great need is not more doctors, but better ones, and this need the Medical Society of the

State of New York is striving to meet in a two fold way. 1. By a system of graduate education conducted through the county societies, and, 2, by a happy understanding between the Medical Societies, the official Departments of Health, and the lay health organizations.

If the people of a community think they need a doctor, the lay health group, such as the County Committee on Tuberculosis and Public Health, is the proper organization to investigate the conditions and supply the lacking element. In most cases the real need is that for a public health nurse.

THE COMMITTEE TO INVESTIGATE CHIROPRACTIC

The last Legislature authorized the appointment of a committee of Senators and Assemblymen "To sit anywhere in the State and inquire into the nature and work of chiropractors within the State and their qualifications to perform the service rendered by them, and to propose such legislation as such committee shall deem necessary for the regulation and control of the practice of chiropractic in the State of New York."

The members appointed were Senators Karle of Queens, and Shackno of Bronx, and Assemblymen F. M. Smith of Otsego, Allen of Dutchess, and Reidy of Bronx.

The committee was given an expense fund of five thousand dollars, and was instructed to report on or before February 15, 1927.

It is to be hoped that the committee will make a real investigation of the methods used by chiropractors and will put them on record as to just what they actually practice and what is their attitude toward bacteriology and communicable diseases.

If the committee permits a dignified cross-examination of the chiropractic witnesses, the upholders of the cults will convict themselves out of their own mouths.

LOOKING BACKWARD—THIS JOURNAL TWENTY YEARS AGO

Twenty years ago the milk situation in the State was not so very different from that at present. The standards had been set, and had been adopted by the cities and ignored by rural districts, just as they are at present.

THE NEW YORK STATE JOURNAL OF MEDICINE for June, 1906, contains an article on "The Milk Problem" by Dr. W. A. Baker, Health Officer of the rural town of Islip. The following statement by Dr. Baker is as true and applicable today as it was in 1906:

"The task of inaugurating a system of this kind in a whole township is a difficult one, and would require strenuous and determined efforts. A large part of the public would be apathetic, and among the producers of milk you would find many who did not know, and could not, and would not be taught, many antagonisms would be aroused, and as Health Boards are at present constituted, with the ever present factor of politics, they could hardly be expected, in my opinion, to take action excepting in a case of pressing importance to meet a

public demand, and a public demand can only be brought about by educating the public to a realization of the whole subject, and to this end I think we have an "entering wedge" in the work that is now being done by our larger cities. City people are coming more and more to appreciate the fact that the purity of their milk supply is being guaranteed, and as they realize more fully what this means, not only to themselves but especially to their children, they will not only ask, when they go into the country for the summer months, but demand to know the quality of the milk that is offered to them. In other words, they will purchase only 'certified' milk."

The grade "Certified" milk has not had the general sale that Dr. Baker expected, because Grade A pasteurized has come to stand for a high standard of purity and wholesomeness. But even the label Grade A pasteurized milk is no guarantee of the sanitary quality of the milk, unless the producers and distributors are reliable.

It is rather surprising that a review of rural milk control made twenty years ago will apply at the present day.



MEDICAL PROGRESS



Surgical Treatment of Medical Diseases of the Abdomen.—John B. Deaver (*Therapeutic Gazette*, May 15, 1926, xlii, 5) observes that the classification of medical diseases of the abdomen as contrasted with surgical diseases depends, obviously, on individual opinion and experience. The unquestionably surgical diseases are pyloric obstruction, gastric tumor, chronic tuberculous ulcer of the intestine, acute appendicitis, chronic appendicitis, acute inflammations of the gall-bladder, acute pancreatitis, chronic interlobar pancreatitis in the presence of jaundice, and acute suppurative hepatitis. Patients with gastric and colonic ptosis are often made worse by operation, these cases are now wisely transferred to the medical realm. Colitis is strictly a medical condition, with the rare exception of the advanced ulcerative type. In adults in whom the differential diagnosis between appendicitis or appendicocolitis and appendicitis is impossible, removal of the appendix is required, followed by vigorous medical treatment of the diseased colon. Peptic ulcer and chronic inflammations of the gall-bladder are conditions which have excited much controversy. According to Deaver's experience, if the symptoms of peptic ulcer do not subside after four months' medical treatment, or if they return after a temporary lull, operation should be performed. Once a diagnosis of infection of the gall-bladder or of the bile ducts is established, surgical intervention is indicated. In biliary cirrhosis the best results are obtained by early drainage and splenectomy. The treatment of portal cirrhosis or Laennec's cirrhosis is strictly medical as is also that of tabetic crises, abdominal angina, and herpes of the abdominal wall. Obstructive or hepatogenous jaundice requires surgical intervention. In cases of hematogenous jaundice, where the spleen is at fault, splenectomy offers much in the way of cure, while in suppression or toxic jaundice surgery has nothing to offer. Subacute pancreatitis, in the form of localized hemorrhages, never requires surgical interference, and the same is true of chronic interacinar pancreatitis. The only cure for wandering spleen is splenectomy. In pernicious anemia, splenectomy, in some cases with an enlarged spleen and a good blood picture, has resulted in amelioration, but it has never produced a cure in these cases. Among the most striking results in splenic diseases is the cure or arrest of Banti's disease by biliary drainage and splenectomy. The advisability

of splenectomy in Gaucher's disease remains in doubt. In tuberculosis of the spleen, splenectomy followed by a suitable regimen offers the best chance. In chronic tuberculous peritonitis, simple exploratory laparotomy, which often suffices to arrest the condition, is not a panacea in the presence of obstruction from adhesions. Embolism and thrombosis of the mesenteric vessels are difficult of diagnosis but should be kept in mind in any case of acute abdominal catastrophe. The only hope in such cases is resection of the gangrenous bowel.

The Medical Treatment of Surgical Diseases of the Abdomen.—Hobart Amory Hare (*Therapeutic Gazette*, May 15, 1926, xlii, 5) declares that there can be no medical treatment of surgical diseases, nor can there be any surgical treatment of medical diseases. The determination as to whether a case is surgical or medical primarily rests with the medical man. He takes on a degree of responsibility that is continuous in many cases for many years, whereas the surgeon takes on responsibility only at the time of operation. There are subacute or chronic conditions in which it is quite possible that by rest in bed and suitable nonsurgical treatment the dangers and complications of surgical measures can be avoided. From the standpoint of the surgeon, chronic dyspepsia is a hall-mark of a gall-bladder or gastroenteric lesion, but every medical man knows that only a relatively small percentage of those who have dyspeptic symptoms require surgery. The results of surgery are not always perfect. For a long time after operation an abdominal scar may be hypersensitive, and post-operative adhesions may cause the patient discomfort greater than his original suffering, the more so as the shock of the operation and ether administration has rendered his nervous system hypersensitive. It is possible, for example, that the absence of a gall-bladder may not be compensated for by an adequate or hypertrophied sphincter of Oddi, and the bile drools continuously into the small intestine and regurgitates into the stomach, so that the last state of the patient may be worse than the first.

There is more medical treatment needed for surgical cases than surgical treatment for medical cases. The average surgeon is far too careless in the preparation of his patient. Too little attention is given to carious teeth and infected tonsils. As a result, pathogenic organisms from these sources are liable to

localize in the devitalized surgical area, or may be drawn into the respiratory tract during anesthesia. More care should be given to the mind and nervous system before operation and much more attention should be given to postoperative care. The surgeon should be acquainted with the drugs he uses. As an illustration the common delusion still exists that a teaspoonful of sodium chloride to a pint of water makes a physiological salt solution, whereas, depending upon the size of the spoon and how it is piled up, it may be hypertonic, hypotonic or isotonic, and if hypotonic or hypertonic to a sufficient degree it is practically equivalent to a poison. Hare questions whether in collapse of the lung if it is recognized early, it might not be advisable, since there must be a partial vacuum in the pleural cavity, to make this vacuum more complete by aspiration and so to re-expand the collapsed lung. He also calls attention to the disadvantages of the Trendelenburg postures in that it throws the abdominal contents against the diaphragm, preventing its free movement and interfering with circulation in the upper abdominal zone.

Visceral Pain and Referred Pain—In an address before the Oxford Medical Society, J A Ryle (*The Lancet*, May 1, 1926, cxx, 5357) endeavors to support the hypotheses (1) That there is a true visceral pain felt by the viscus (2) That visceral pain is due to an abnormal increase in tension of the muscular element in the wall of the viscus, this increased tension resulting either from contraction or from failure on the part of muscle fiber to relax adequately in the presence of increased intravisceral pressures (3) That visceral pain when occurring alone, or dissociable from attendant somatic pains, may be accurately localized by the patient (4) That referred somatic pain and tenderness, e.g., the viscerosensory reflexes, and the associated visceromotor reflexes, although they may accompany a severe visceral crisis of mechanical origin, more frequently express an inflammatory lesion of the viscus (5) That, when persistent, they invariably express organic disease of the viscus of an inflammatory kind. It is never suggested that normal physiological sensations peculiar to certain viscera, such as hunger, sensation of repletion, appreciation of states of fullness of the bladder and rectum, are referred to somatic tissues. It seems plain that the hollow viscera are endowed with the same sensibility, positive and negative, as the skeletal muscles, in other words, visceral sense is muscle sense. The majority of non-inflammatory visceral pains (unless they fall into the group of severe visceral crises) are but rarely accompanied by reflected superficial soreness, and it is generally agreed that pains of mechanical origin, such as ordinary

stomach ache, intestinal colic, renal and biliary colic, are deeply localized. The reflected phenomena of visceral disease are best demonstrated in association with the severe forms of visceral pain or in association with inflammatory disease. The arm pain of angina, the subscapular pain of cholelithiasis, and the testicular pain in ureteric colic are the classical examples of the former group, of the latter is the hyperalgesia of muscle-guarding found in appendicitis and chronic gastric ulcer. Reflected phenomena rarely accompany diseases of a functional kind, they are generally associated with local organic changes. Ryle further supports his hypotheses by detailed consideration of disorders of the stomach, the gall-bladder, the appendix, the intestine, the kidney and ureter, the uterus and fallopian tubes, and the heart and arteries. With reference to the latter he argues that angina pectoris is due to an increase in tension in the walls of the aorta or coronary vessels, or both depending not upon spasm but upon a failure to relax in the face of the increasing pressures and demands incident to increased cardiac work. There are eight reasonable questions which may be put in regard to visceral pain. These have reference to (1) situation, (2) extent, (3) character, (4) severity, (5) duration, (6) frequency (7) aggravating factors, (8) relieving factors. Inquiry should also be made concerning associated pains (deep and superficial) and other associated symptoms. There is still much to be learned by a careful study of pain.

Epidemic Encephalitis in China.—The impression among many physicians is that the so-called non-tropical sleeping sickness is virtually a new malady which prevails only in the more civilized races or at least that it practically does not occur in the primitive races. The position of the Chinese in the scale of civilization is difficult to fix, but the great body of this race lives under very primitive conditions. Until recently, judged by the files of the *Chinese Medical Journal*, the incidence of the disease in the country has not only been slight but more or less dubious. The first cases published were open to doubt. In passing it may be stated that the Parkinsonian syndrome is among the diseases not known to occur in China, so that its sudden appearance at this juncture could plausibly be ascribed to encephalitis. Dr M Pfister, neurologist of the Pekin Union Medical College, who supplies the above information in a communication appearing in the *Muenchener medizinische Wochenschrift* of April 16, 1926, has made an exhaustive study, extending over several years, to determine the exact incidence of the disease in his adopted country. The Pekin General Hospital records supply a measure of this incidence, and during the past two and one half years he has personally seen 100 cases, an analysis of which is

given In 1923 Woods, Pfister's predecessor in the same hospital, placed 21 cases on record. Over half of the cases were from the city and outlying country and the balance from various provinces. The earliest case goes back to 1919 and before its appearance at Peking there were still earlier ones at Shanghai and Foochow. Since 1921 cases have appeared annually at a summer resort much frequented by aliens. While 82 per cent of the author's 100 cases were in native Chinese the incidence in the relatively small contingent of whites was considerable, and as some of the Chinese had lived in close proximity to whites, the latter may possibly have transported the virus as carriers. The disease clinically is true to the European-American type.

The Hypotonic Symptom Complex — G. Joachim complains that while much has been written of hypertonic subjects with and without arteriosclerosis, but very little is said of the opposite or hypotonic group save the acute fall of pressure seen in collapse. With this he is not especially concerned here, and he confines his studies to cases of permanent low blood pressure, calling attention to the fact that subjects with the latter are somewhat inclined to fainting fits as part of the syndrome. In order to have a material basis for his conception of a low pressure subject, he has taken the blood pressure in 3,000 consecutive patients and in this number he found 181 with habitually low figures. Not all could be regarded as natural hypotonics for 19 had organic heart disease and 14 others were suffering from some form of cachexia — tuberculous, cancerous, Addisonian, etc. This leaves the constitutional hypotonics at 148 or about 5 per cent. The criterion was a systolic pressure below 110. In practically all cases the diastolic varied normally with the systolic, so that a hypotonic has a normal pulse pressure. In examining his 148 patients for symptoms and stigmata his results were inconclusive, unless we figure that what was obvious in the few was present to some degree in all. The author mentions only 10 per cent as actually showing sensible enlargement of the lymph nodes but seems to infer that this is a leading factor in the production of hypotonus, partly because extract of lymph glands has been found to possess a powerful pressor action in animal experiments. The energy of these subjects and their resistance to infections are small, they nearly all show a tendency to swoon under provocation, but little more can be said of the group as a whole. While some are of the asthenic build others have large frames and are stout, although pallor and pastiness are common. The condition is not to be confused with neurasthenia. The best remedy in theory and practice is strychnine. The author fails to allude to the relation between members of this group and persons with the status lym-

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Radon Seeds in Carcinoma of the Tongue — In presenting a new technique of radium therapy in lingual carcinoma, Joseph Muir (*Annals of Surgery*, May, 1926, LXXIII, 5) discusses the advantages and drawbacks of the various methods heretofore used in the treatment of this condition. Imbedding of bare tubes according to Janeway's methods affords an even distribution of radiation, but causes necrosis, and may even induce unavoidable fatal hemorrhage. Screened tubes are objectionable because they must remain in the tongue as foreign bodies. The platinum needles advocated by Regaud obviate necrosis, as do the Janeway tubes, and can be removed when radiation is completed, but proper distribution of these applicators is very difficult, they cause much trauma, and above all they are hard to immobilize and cannot be placed on the posterior dorsal surface of the tongue. By limiting the amount of radium emanation employed in a single center to 2.5 millicuries, no evidence of necrosis has ever followed in any of Muir's implantations. The radon seed is so minute that its implantation causes little or no trauma. In making the application the growth is first carefully palpated, and the number of seeds required is determined according to its depth and surface extent. When a seed has been placed in the desired position, the attached thread is left protruding from the point of entry, where it is cut off so as to leave just enough to be readily grasped with forceps at the time of removal. It is not necessary to suture the seeds in place. The seed may be of any desired length, being radioactive throughout, so that its dimensions can be adapted to the length and breadth of the area to be treated.

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ease than ever before. In the interests of the prophylaxis of exophthalmic goiter the vital problem is how to raise the threshold of emotional reaction. The quality and quantity of education, food, sleep, occupation, home training, amusements, and many other factors require careful consideration and regulation. The desire for stimulation extends itself consciously or unconsciously toward food and drink, with perpetual whipping up of the sympathetic nervous system and the endocrines. These individuals should have little flesh food, and must abstain from condiments, spices, tea, coffee, and even certain soft drinks. Sleep must be of sufficient quantity and quality to be fatigue-dispelling—at least nine hours of restful sleep preceded by an hour of appropriate reading, conversation, or pleasant music. Nerve-racking occupations must be avoided. The author comments on the mad rush for amusements, and urges the cultivation, to take the place of emotional alertness, of the so-called phlegmatic temperament. The adherence to the broad principles of the simple life and the discovery and fortification of weak links in the subject's make-up will bring about the desired equilibrium in sufficient degree to be highly gratifying to all concerned.

Cure of Noma With Sulphate of Copper—F. Kaspar, writing in the *Wiener klinische Wochenschrift* of May 6, 1926, claims to have cured a case of noma by the simple use of a solution of copper sulphate. He was led to test this remedy because in his bacteriological work he found that it arrested the growth of Vincent's fusiform bacillus, now recognized as at least one cause of this dread disease. This one result he regards as sufficiently brilliant to report, but he has since learned that he has been anticipated in the use of the remedy by modern Russian physicians who have cured a considerable number of cases. The 10 per cent aqueous solution is used. Application of this solution to the gangrenous area of the cheek was followed in the author's case by the formation of a line of demarcation announcing that the disease process had been arrested. The author regards the Vincent fusiform bacillus acting alone as the cause of but one type of noma. In other cases the symbiosis of this organism with a spirochete appears to be the cause, and in this type the author fears that the copper solution might not cure as it has no power over the spirochete. Under these conditions he would add salvarsan locally and intravenously and would expect a cure. Salvarsan in turn has no power over the fusiform bacillus. The latter when it occurs in noma has an astonishing polymorphism and its simulation of other pathogenic bacteria has probably led

to reckoning some of these as able to cause the disease. As a matter of fact it is by no means unlikely that quite different organisms can produce the same gangrenous affection in the poorly nourished children who contract it. The author's patient chanced to be an adult, which is an extremely rare coincidence, for of 413 cases collected by Bruns only 11 were in individuals over 15 years of age. In the author's case and two others quoted by him, also in adults and both fatal, the noma followed extraction of a tooth. The mortality of the disease in the past has reached 80 per cent, but recent cases are showing an improvement on this figure.

Vaccinal Immunization of Newborn Infants Against Tuberculosis—Professor A. Calmette, chief of the Pasteur Institute, Paris, assisted by C. Guérin, L. Negre and A. Boquet, reports on the results of a five-year trial of the vaccine known as BCG. The summary is in part as follows. It has been shown that subjects free from any preexistent taint of tuberculosis may be immunized against both accidental and provoked bacillary infection not only by inoculation but also by buccal absorption. The vaccine is an emulsion of living culture which was originally of a virulent bovine strain but which has been deprived of certain qualities by slow and hereditary modification, using as a medium oxbile, which is naturally alkaline and rich in lipoids. The bacillus has been rendered avirulent while preserving its antigen properties. It is well tolerated by mammals and birds of all kinds and has never caused inoculation tubercle. The immunity is for a year and upwards in young bovidæ, various monkeys and anthropoids, while for laboratory rodents it is not so long. In regard to mankind it is not claimed that the vaccine will immunize adults or adolescents, save perhaps in countries not yet ravaged by the disease. The subjects must be sound and react negatively to the tuberculin test. Longer immunity may be secured by further inoculation or buccal administration, but obviously the amount of immunity derived by human beings can only be estimated indirectly. As the title of the paper implies the work has been limited chiefly to very young infants, and special emphasis is laid on the importance of including all sound subjects whose mothers are tuberculous. Over 5,000 nurslings have been vaccinated in the past five years and the actual mortality in this series from tuberculosis is about 2 per cent while the ordinary figures used for control are nearly 25 per cent. There have been no accidents nor untoward sequelæ of any sort from the vaccine and the method is recommended as quite harmless. *Annales de l'Institut Pasteur*, February, 1926.

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FAILURE TO REMOVE STONE IN OPERATION UPON GALL BLADDER

In July a woman called at the office of a physician in the village in which she resided, complaining of pain in the right arm and right side. Examination disclosed an enlarged gland and an abscess, which was incised, cleansed and drained and which healed without any untoward event. In the latter part of July she again returned to the physician, at this time complaining of pain in her right side and nausea. Examination showed a tenderness in the region of the gall bladder and medical treatment was given for the condition. She again called upon the physician about the middle of August, and after examination the same condition was found except that she was suffering from increased pain and had been for several days. A few days thereafter the physician called at her home and upon examination he found that the condition had grown more severe. He then advised that she be operated upon by a surgeon in an adjoining city. On August 20th the patient entered the hospital and on August 21st the surgeon, assisted by the family physician, under a general anaesthesia, made an abdominal incision, drained and cleansed the gall bladder, finding no stones, but found the gall bladder infected. The gall bladder contained several ounces of a vitiated bile of a thick ropy nature. It was drained and cleansed and a drainage tube placed therein. The gall bladder was also found to be abnormally enlarged. While at the hospital the patient remained under the care and attention of the operating surgeon, who cleaned, drained and dressed the wound almost daily. She remained at the hospital until September 8th, at which time her husband gave notes to the surgeon for his services. On December 6th a partial payment was made upon one of the notes and the note renewed. No further payments were made to the surgeon for any services rendered by him. After leaving the hospital the patient was not attended by the surgeon except on December 6th when she called at his office to make the partial payment and to renew the note, he talked with her with reference to her condition, but made no examination nor did he render any treatment.

After returning to her home from the hospital she was treated by the family physician upon various days between September 12th and November 24th, at each of which times the gall bladder was thoroughly cleansed and antiseptic dressings applied. She was also furnished with antiseptic dressings and instructed as to the dressing of herself between her calls upon the family physician. She did not return to this physician after November 24th. The physician and surgeon learned that the patient had gone to a surgeon in another city, who operated upon her and removed a smooth stone from the gall bladder.

A few months after the performance of the second operation both the patient and her husband instituted actions against the family physician and the surgeon who had first operated upon her, charging that the defendants negligently made an incision into the patient's abdominal cavity but did not remove from plaintiff any gall stones, which the defendants claimed caused the plaintiff's illness, and that the defendants negligently failed to complete the operation and failed to remove the gall stones, and that by reason of their negligence the plaintiff was not cured of her malady of gall stones and was required to submit to a second operation for the removal of such gall stones and was rendered sick and incapacitated for a long period of time. The answers of the defendants denied any negligence upon their part in their examination, diagnosis, treatment or operating upon the plaintiff. The answer of the surgeon set up as an affirmative defense that any cause of action against him was barred by the statute of limitation, as he had treated the plaintiff only between the 20th of August and the 8th of September, and that the action against him had not been instituted until four days after the two-year statute of limitation had run on an action against him for malpractice.

When the case came on for trial the plaintiffs testified in their own behalf and gave their version of the examination, treatment and operation by the respective defendants, and as to the defendant surgeon it was claimed that at the time she called upon him on December 6th he examined and treated her. The plaintiffs also called as a witness in their behalf the surgeon who performed the second operation, but his testimony was not sufficient to establish, by the finding and removal of the gall stone by him that it was present at the time the defendant surgeon operated, or if present, that the failure to remove the same was due to any negligence or carelessness in the performance of the operation. At the close of the case the trial court dismissed the complaint on the merits as against the family physician, and as against the defendant surgeon dismissed it on the ground of the defense of the statute of limitation, holding that the relation of physician and patient had terminated on September 8th and was not continued or renewed by the plaintiff's call on the surgeon on December 6th, when she made an installment payment upon the monies due the surgeon for his services. After the entry of judgment in favor of the defendants the plaintiffs served a notice of appeal to the appellate court and prepared and served the record on appeal. Thereafter and before the argument of the appeal, the entire matter was disposed of by the withdrawal of the appeal, the discontinuance of the actions and the exchange of releases by all parties.



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

THE DOCTOR CARRIES ON

Nothing more fitly symbolizes the pluck and the determination of the soldier to go forward than the terse two-word order Carry on! Into this short command there is packed the whole language of courage and patriotism

As we stand day in and day out before courts and juries battling for the rights of accused doctors, and as we study and apprehend the fine morale and the splendid service of the medical profession—often under attack, frequently misrepresented, many times assailed and seldom fully understood—it has occurred to us more than once that there is no body of men that more loyally obeys the command "Carry on!"

Little does the public know of the vast amount of uncompensated work in the alleviation of pain, sickness and disease that is "carried on" by the medical profession. Perhaps there is no single fact which more sharply differentiates modern times from antiquity than the patient, quiet, unheralded, unrequited and generous service which doctors give to the poor patients in our great hospitals and elsewhere. Men, women and children who cannot afford to pay either for medical care or nursing are treated by physicians with the same care and skill, the same zeal, the same loyalty and the same enthusiasm as are the patients who are able to pay. Diagnoses are made of the most elaborate and thorough character involving radiography, bacteriology, clinical findings, and the manifold agencies which the physician enlists in determining the nature and cause of a disease. Treatments and remedies are given, fractures are reduced, operations are performed, after-care is administered, daily to thousands of poor people who could not possibly secure these things if the physicians did not give of their time, their skill, their knowledge and their experience without stint and without reward of any kind, save the compensation which comes from the consciousness of having performed a service to mankind. Although, of course, endowed institutions, societies for medical benefit, life insurance and analogous bodies are not entitled to receive such service, the medical profession, to a man, is loyal to the mandate of its twenty-seventh principle of professional conduct "Physicians should always recognize poverty as presenting valid claims for gratuitous services."

Perhaps far more than the clergyman, the doctor and the lawyer have opportunities for the study of human nature. It is a study more fas-

cinating, more educational than that which could be derived from books. Fortitude is seen, courage, generosity, appreciation and unfortunately the absence of these is also frequently discovered. The real and true expression of gratitude by a patient oftentimes is a greater reward than financial compensation, but there is nothing more discouraging, more depressing or embittering than a lack of gratitude for professional work well done. And yet how often is this the sole reward of the doctor who has labored, who has worried and who has borne the burden and heat of the day in a valiant contest against disease or death itself.

As we have sat through the long hours in court and have listened while the opposing lawyer pilloried and assailed an honorable and an innocent doctor and held him up in the presence of the court and jury and the curious spectators to ridicule and contempt, we have often marveled at the equanimity and the patience with which these things are borne by the worthy doctor. How many times have we seen the doctor who has done all that science could do, who possesses all the qualifications that the law requires, who has kept abreast of the times in his study and has brought his manifold equipment to bear, find that when he has finished with his work his reward is the defense of a malpractice action. Time and again we have defended cases where what the doctor did had saved the patient's life, and yet the gratitude of that patient and of his friends was expressed in engaging a lawyer to pillory and assail the reputation of that doctor and, through their testimony, seek from him heavy money damages.

It requires philosophy, tolerance, sweetness of disposition, patience and forbearance to suffer these things and not to become embittered against human nature itself. The doctor who has been wounded by these "slings and arrows of outrageous fortune" the next day begins his work again and continues to minister to the sick, to treat and prescribe for those who are wholly unable to pay him for his services, knowing that when he is through his sole reward may be an unjust defamation of his character. There is something fine and strong in the heart and mind of the true physician who, under all these difficulties and dangers, "carries on."

Carry on! That is the slogan of the doctor in peace as it is of the soldier in war.

MONROE COUNTY MEDICAL SOCIETY

The regular meeting of the Medical Society of the County of Monroe was held at the Monroe County Tuberculosis Sanatorium on June 8, Dr A G Morris, president, presiding

Minutes of meeting of 16 March 1926, read and approved

Report of meeting of Comitia Minora read and approved

Election of candidates

Dr Morris appointed Drs Leve and Avery as tellers, who reported, after the balloting, Dr Ezra Bridge unanimously elected to membership

Reports of Committees

1 Periodical Health Examination

Dr Sawyer urged the members to cooperate by being examined

2 Legislative

Dr W A Calihan spoke of the success of legislation in the last session of the Legislature, and offered the following

"Resolved, That the secretary of this society be instructed to write a letter to each of the Legislators in this county who voted favorably on the Webb-Loomis Medical Practice Act Amendments in the last Legislature, expressing the appreciation of the Medical Society of the County of Monroe for their efforts to protect the public health of the State

And be it further resolved that the secretary write a letter to

1 The president of the Tuberculosis and Public Health Association, expressing to that organization, through him, our appreciation of their cooperation in presenting the problem of the Medical Practice Act to legislators and lay public in a way which helped materially in the passage of this legislation, citing particularly the active and thorough work of Mr Raymond Greenman, executive secretary

2 Mr Roland B Woodward, Secretary of the Rochester Chamber of Commerce, extending to him the appreciation of this organization for the active efforts which he put forth in the furtherance of the passage of the Medical Practice, citing in this letter the very fine cooperation given by Miss Bingeman

3 Mr Percival D Oviatt, who as a representative of the Chamber of Commerce, gave up a day to be present in Albany at the hearing before the Governor, expressing to him our sincere appreciation of his cooperation"

Dr Calihan moved the adoption of this resolution

Seconded and carried unanimously

Dr Wolff moved that a vote of thanks be extended to Dr W A Calihan, chairman, and the other members of the legislative committee for their efficient work in behalf of the Medical Practice Act

Seconded and carried unanimously

Dr Winslow read a letter from Dr Burton Simpson, relative to the placing of the State Institute for the Study of Malignant Disease at Buffalo, N Y, under the jurisdiction of the State Health Department, and moved the adoption of a resolution urging its transfer to the control of the State Board of Charities

Seconded

The secretary read a letter from Dr Matthias Nicoll, Jr, Commissioner of Health, re this matter

Moved by Dr W A Calihan that the matter be laid on the table

Seconded and carried

The secretary read a letter from Dr G A Goler, Health Officer, relative to the Health Department's plans for toxin anti-toxin campaign

Discussed by Drs Johnson, Hazen and N W Soble

Program—Scientific

"Symposium on Pulmonary Tuberculosis"

Dr Ezra Bridge "Interesting possibilities of expiration and cough"

Dr H P Smith "Tubercle in the lung" (with pathological slides)

Dr Joseph Green "Differential Diagnosis of Diseases of the Chest, by the Roentgen Ray" (with slides)

Dr A M Stokes "What the Monroe County Tuberculosis Sanatorium does for its cases"

Scientific Program

The symposium was given by members of the Sanatorium Staff, Dr Bridge, Superintendent, Dr Stokes, Resident Physician, Dr Smith, Pathologist, and Dr Green, Roentgenologist

Dr Bridge gave a very enlightening demonstration on a patient of the practical advantages of the expiratory cough, and the proper manner of using this aid in examination

Dr Stokes summarized very closely the routine of the Sanatorium and the most effective and approved methods in use in the treatment of the various phases of tuberculosis

Dr Smith showed a number of excellent pathological slides and specimens

Dr Green demonstrated a large series of interesting and instructive X-ray slides, bringing out very clearly the differential points of diagnosis of diseases of the chest, from an X-ray standpoint

Discussion by Drs Lloyd, Richard, Davidson, Soble and Bridge

Dr C R Barber, of the Board of Managers of the Sanatorium, invited the members to partake of a very enjoyable lunch as the guests of the Sanatorium



NEWS NOTES



THE CONTROL OF X-RAY LABORATORIES

The use of the X-ray for the diagnosis and treatment of human beings may be a grave menace to health and is, therefore, a public health problem. The Department of Health of New York City has, therefore, incorporated the following regulations in its Sanitary Code

Section 107 No person shall maintain, operate or conduct an X-ray laboratory or advertise or hold out to the public that an X-ray laboratory is maintained, operated or conducted, wherein radiographs are taken, diagnoses made or human beings examined or treated by X-rays, without a permit therefor issued by the Board of Health, or otherwise than in accordance with the terms of said permit and with the Regulations of the said Board. (As adopted by the Board of Health, January 26, 1922)

Regulations Governing the Conduct and Maintenance of X-ray laboratories in the City of New York (Adopted by the Board of Health, January 26, 1922)

Regulation 1 Information to be furnished by applicant. Every applicant for a permit to conduct an X-ray laboratory shall be made in writing on an official blank to be furnished by the Health Department and must contain the following information

Location of building
Location in building
Character of building
Name of owner of building Address
Name of applicant Address

If a corporation

- (1) When and where incorporated
- (2) In what county certificate has been filed and date filed
- (3) Officers of the corporation.

- (4) Place of business of the corporation.
- (5) Full and accurate incorporate name

If a partnership

- (1) Names of persons composing partnership in full, with their places of residence

If a trade name

- (1) The full names of the person or persons doing business under such trade name.
- (2) Complete and full trade name
- (3) Place of filing of certificate as required by the statute, and date filed

Regulation 2 A duly qualified person to be in charge. Every X-ray laboratory shall at all times be in charge and under the direction of a duly licensed physician or other person who is licensed under the Laws of this State to diagnose and treat diseases and whose knowledge, experience and qualifications to operate and use an X-ray machine are satisfactory to the Health Department. (As amended by the Board of Health, Feb 6, 1926)

Regulation 3 Precautions against danger. Every X-ray laboratory shall be so constructed as to confine within the operating room the rays emanating from the machine and it shall be equipped with suitable and necessary appliances and devices at all times when the X-ray machine is in operation for the proper protection of patients, operators and all other persons or property adjacent, contiguous to or coming in contact with the electrical or other current or force or spark generated or incident to the operation and use of the X-ray machine

Regulation 4 Permits may be revoked in the discretion of the Board of Health

Regulation 5 No permits shall be transferable as to the person or place. A permit is issued to a particular person, firm or corporation and for a given location and is not valid for use by any other person or in any other place than stated in the application for a permit

THE MEDICAL SOCIETY OF THE COUNTY OF ONEIDA

The regular meeting of the Oneida County Medical Society was held on Tuesday, April 13, 1926, at Utica, N Y, with a large attendance. Dr J Lloyd Golly, of Rome, President of the Society, occupied the chair

In addition to the election of Dr Melvin G Preston, of Utica, and Dr L S MacMillan, of Taberg, as members of the society, and Dr E W Huxtable by transfer from the Wayne County Medical Society, we had reports from the Delegates to the House of Delegates. Dr Andrew Sloan, for the Delegates, announced the election of Dr G M Fisher as President of the State Society, also the election of Dr T H Farrell as Delegate from the Medical

Society of the State of New York to the American Medical Association. Dr Sloan let it be understood that the Delegates from Oneida County were well occupied with executive and committee room work during the recent session of the House of Delegates

Scientific Program of the meeting consisted of an address by Dr George E Beilby, of Albany, N Y, on "The Indications for Surgical Treatment in the various types of goitre with an analysis of results," which was immensely appreciated by all present, and discussed by a number of members, including Drs Evans, J D Jones, Guile and Smith

ULSTER COUNTY MEDICAL SOCIETY

The regular meeting of the Ulster County Medical Society was held in the Governor Clinton Hotel, Kingston, New York, on June 3, 1926, at 8 30 o'clock, with the president, Dr Mary Gage Day in the chair. Three new members were elected, Dr W P Van Wagenen, Lake Mohawk, Dr W S Bush, Atwood, N Y, and Dr J C Gross, Phoenicia.

The principal feature of the meeting was a testimonial dinner to the physicians of Ulster County who had practiced medicine for fifty years or more. These were

Dr J R Nelson, Kingston, Dr A P Chalker, Kingston, Dr Henry Van Hoevenberg, Kingston, Dr E H Loughran, Kingston, Dr George C Basten, Kingston, Dr B F Neal, Ellenville, Dr R Crawford, Saugerties.

The toastmaster was Dr Laughran, who described an epidemic of smallpox in the vicinity of Kingston in 1872. He had worked on the epidemic five months and then had taken the disease and was quarantined in the "Pesthouse" in the woods with a number of folks, both white

and colored, and according to his opinion now they "had a bully good time."

Dr Crawford told of the trial, fifty years ago, of the man who shot Jim Fisher. Dr James R. Wood, the famous surgeon, testified that when he could not locate the bullet with a probe, and had inserted his finger into the abdomen, the lawyer for the defense claimed that, since it was recognized that to enter the abdominal cavity was fatal, Dr Wood was the real murderer.

Dr Chalker said that in his younger days an old doctor of Kingston carried a big box on the rear of his buckboard with which he put the chickens and pigs that he received as fees.

Dr Van Hoevenberg recalled the days of his father and grandfather, both of whom practiced medicine in Kingston. His father had given the first chloroform anesthetic in Kingston, and his grandfather was an army surgeon in the war of 1812.

Dr Nelson said his father and uncle were doctors, and his mother, who was the daughter of a clergyman, read a chapter of the Greek testament daily in the original Greek.

CLINICAL CONGRESS OF THE CONNECTICUT STATE MEDICAL SOCIETY

The second Clinical Congress of the Connecticut State Medical Society is scheduled to meet on the three days in September 21 to 23, in New Haven. Practical papers will be given during the day. One evening will be given over to a symposium on the Periodic Health Examination and another to a smoker. A fee of ten dollars will be charged, but it will include the smoker and a luncheon on each day of the session, parking space and garage for a car, and a copy of the printed abstracts of the papers—surely a modest fee.

The Clinical Congress of the Connecticut State Medical Society is in its second year. The activity was started last year by a group of men here in New Haven who wished to promote a post-graduate assembly. It was first contemplated to do it independently, but upon further consideration it was deemed advisable to have it under the patronage of the State Society. The Congress last year was very successful and this year seems to

promise even more. It is not the annual meeting of the Society, as a matter of fact it is not any stated meeting of the Society, it is simply a post-graduate assembly arranged for the physicians of Connecticut and neighboring states. It finances itself. The gentlemen who direct its activities are of necessity all members of the State Medical Society, but the President of the Congress is not the President of the State Society, and he appoints his committees to carry on the work. There is finest harmony between the management and the Council of the State Society. Two of the eight Councillors are on the Executive Committee of the Congress.

Last year three hundred and fifty doctors were present from six states. This year five hundred are expected. Physicians from New York State are cordially invited to attend. The Secretary of the Congress is Milton C. Winternitz, M.D., Dean of the Medical School of Yale University.

MEDICAL SOCIETY, COUNTY OF QUEENS

A regular meeting of the Medical Society of the County of Queens was held Tuesday evening, April 27, 1926, at Eagle Palace, Jamaica. President Dr. Denis McMahon in the chair.

The minutes of the meeting of April 6, 1926, were read and approved as amended.

The chair announced that with the consent of the society the usual order of the program would be reversed, whereupon the society proceeded with the Scientific Program.

1 Paper The X-ray Diagnosis and Treatment of Tumors of the Mediastinum, with lantern slides, illustrations of X-rays of such tumors—John G. Williams, M.D., Brooklyn.

The speaker described the various types of tumors, the frequency of their occurrence, the value of the X-ray in conjunction with the clinical features in the diagnosis. Among other things *he emphasized the more favorable response to X-ray therapy of malignant tumors and the value of such improvement in the differential diagnosis, and the results of treatment, with presentations of cases.* Discussion by Drs. Thomas, Voltz, Lesoff, Startz, and closed by Dr. Curran.

2 Talk—Surgery of Accessible Neoplastic Diseases by Endo-thermy. Slides and Motion Pictures—George A. Wyeth, M.D., New York.

The speaker used the term endothermy as the surgical application of high frequency currents, in contra-distinction to the term diathermy, indicating the medical applications of high frequency currents. Before proceeding with destruction of the malignant tissue, it is first surrounded by a layer of coagulated tissue by which the lymphatics and blood vessels are closed, preventing migration of malignant cells and diminishing the tendency to metastases.

The use of the mono-polar and bi-polar current methods and the endothermy knife were explained.

Discussion by Drs. Thomas, Lesoff, Davis, Getler, Lint, closed by Dr. Wyeth.

On motion by Dr. Langer a vote of thanks was extended to the speakers of the evening.

Executive Session

For the Comitia Minora, Dr. Dobbins moved the election of George A. Irwin, M.D., 109-19 Farmer's Avenue, Hollis, L.I., Louis G. Raff, M.D., 45-30 National Avenue, Corona, L.I., Hyman Rappaport, M.D., 168 Forty-sixth Street, Corona, L.I. By one ballot cast by the Secretary, motion seconded and passed, whereupon the chair announced the candidates members of the society.

Dr. Berry, Chairman of the Legislative Committee, reported the fates of the various bills considered by the State Legislature and moved that the President be instructed to send a message to the Governor that our society disapproves the Webb-Loomis bill and ask him to veto it. The motion was passed by a vote of 37 to 8.

Dr. Whelan reported for the Membership Committee.

Public Health Committee—no report.

A letter from the Medical Society of the County of Niagara to the President of the Society was read by the Secretary, requesting the Society to endorse Niagara Falls as the next meeting place for the annual meeting of the State Society. On motion by Dr. Thomas, duly seconded and passed, the society resolved so to act.

Under new business, it was announced that the proposed amendment to the By-Laws relative to Trustees had been referred to the Committee on Revision of the By-Laws, to which Dr. Flemming, the mover of the amendment, had been added.

Dr. Flemming spoke on the matter of the formation of the Library Association. The matter was referred back to the special committee.

Dr. Flemming announced that the Queensboro Tuberculosis Association would like to broaden its field of work and change its name to conform to such broader field of work and moved the adoption of the following resolutions.

Whereas, The records of the Department of Health of the Borough of Queens show that the number of deaths from Heart Disease vastly exceeds any other cause of death in this Borough, and,

Whereas, The figures for Maternal Mortality complicating childbirth continue unnecessarily high, and,

Whereas, The experience of physicians especially skilled in the treatment of these diseases is that many of the conditions causing such deaths may be recognized sufficiently early to be at least controlled, and,

Whereas, The Queensboro Tuberculosis Association through its change of name to the Queensboro Tuberculosis and Health Association has indicated its desire to broaden the scope of its activities for the prevention of disease and the promotion of health.

THEREFORE BE IT RESOLVED, That this Society recommend that the Queensboro Tuberculosis and Health Association undertake an educational campaign for the prevention and control of Heart Disease and Maternal Mortality among the citizens of this Borough, through earlier and more adequate care by the Physician of each patient's choice, and,

BE IT RESOLVED, That this Society offers its hearty cooperation in such work.

Resolutions seconded, unanimously passed.

Dr. Prest announced the coming talks of the Graduate Education activities, especially emphasizing the talks of Dr. Kolb.

The President announced the plans for the Outing Meeting in cooperation with the Medical Society of the Greater City of New York.

Attendance, 52.

Adjourned.

PREVENTION OF EARTHQUAKE DISASTER

The reports of recent earthquakes in the Grecian Islands has directed attention to the possible effects of a severe earthquake on Manhattan Island

The *Tribune* of June 28 carries a reassuring editorial, which is as follows

EARTHQUAKE PREPARATION FOR NEW YORK

Several of our correspondents have been perturbed by the erroneous report in one of our contemporaries that the Board of Trade and Transportation had omitted from its survey of New York's preparations for emergencies the one emergency which is probably the only real danger of widespread disaster which New York needs fear. This is a disaster by earthquake. Fortunately, this peril has been included in the survey.

It is true that New York City does not lie in an earthquake zone. Dangerous shocks are by no means so likely here as in Japan or California or Italy or other places where the subterranean forces remain exceptionally vigorous. But no spot on earth is totally free from earthquakes. The eastern coast of the United States experienced severe shocks in Colonial times. Even the Charleston earthquake of the '80s was by no means insignificant. While alarm about an earthquake hazard for New York is by no means justifiable, neither is it proper to neglect this hazard altogether when city-wide plans are made to meet emergencies. No geologist doubts that, sooner or later, New York City will feel a considerable earth tremor. The shock will almost certainly not be disastrous, provided the city is prepared.

The most important item of preparation—probably the only important item—is one of public education. No earthquake is likely to harm our tall buildings. It has been proved by Japanese and Californian experience that such structures resist earth shocks exceptionally well. Nor is there any serious danger of uncontrollable fire or of irreparable damage to the water supply such

as occurred in San Francisco. The real earthquake danger of New York City is that of panic.

A disturbing earth shock occurring during business hours would spill millions of panic-stricken individuals into the streets. There are sections of the city where this would jam the street area more than one person deep. A shocking catastrophe far transcending any fire panic would be almost inevitable. There is just one way to avoid this. It is to drive home to all New Yorkers, in advance, the idea that an earthquake panic is useless and avoidable to tell them, over and over again, that the safest place during an earthquake is inside a steel-and-concrete office building. If even half the people believe this and act accordingly a street panic will be avoided, and a shock, even a severe one, will do us relatively little harm.

On the evening of June 28 the *New York Sun* carried an article entitled "Devils Mobilize for War on Man." The occasion is a warning issued by a conference of spiritualists assembled in London. The description says

H. J. Strutton, editor of the *Occult Review*, committed himself to paper in the latest prediction

"The visions of seers and the conclusions of the students of prophecy," he says in an article, "all point to the end of 1926 as witnessing the culmination of the present cycle of madness, the climax of a period of increasing chaos, and the ushering in of an era of destruction."

"In the end," he declares, "civilization will be saved from utter destruction only by the visitation of some devastating seismic catastrophe that will shake the warring nations out of their madness and compel them to call a halt."

There seems a slight ray of hope, for it is hinted that if "enough people enlist on the side of the angels" within the next two years they may be able to give the devils a fight and eliminate earthquakes.

BANANA SEED

A marked improvement of a food may have a great effect on diet, and therefore on health. The banana has hitherto resisted attempts at improvement, because it could be propagated only from cuttings or roots only. But the *New York Sun* of July says that the seed has been discovered by Dr. F. J. Harris, of Florida, who is quoted

The pistillate or female flowers are at the base of the bunch, which, when it assumes the usual inverted position, places the staminate or pollen bearing flowers below, these are

found under the bracts of the tassel-like appendages. Then again the male flowers are not open until the female flowers of the same bunch are over and dead (one of nature's devices to bring about cross-pollination). But, since the pollen grains are not wind borne but are sticky and remain attached to the anthers.

The minute black specks sometimes found in bananas are unfertilized ovules upon the central placenta, the fertile seeds are three-eighths of an inch in diameter."



THE DAILY PRESS



CAUSES OF DEATH

Statistics may be either dry and uninteresting, or they may be highly emotional and poetical, according to the manner of their presentation. The New York Times of June 5 contains an editorial entitled "The Four Horsemen," which takes a middle course between the statistical and the poetical in the interpretation of the figures of the four greatest causes of death throughout the world. "The Four Horsemen" are poetical personifications of the causes of suffering and death as set forth in the sixth chapter of Revelation. The first rider was a bowman upon a white horse, and represented the selfish conquerors of the earth. The second sat upon a red horse and represented war. The third rode a black horse and carried a pair of balances with which he weighed out property as if it were the most valuable thing on earth—"See that thou hurt not the oil and the wine," said the rider. The fourth rider sat on a pale horse, named Death, and "Power was given unto him over the fourth part of the earth to kill with the sword, and with hunger and with death (pestilence) and with the beasts of the earth (accidents and natural causes, so-called)." .

We are accustomed to think of the book of Revelation solely as religious poetry, but its statistical facts are surprisingly true. War, famine, pestilence, and storm have always formed the greatest quartet as destroyers of human life, and they are still the four destroying horsemen.

It would seem to many that three of the four horsemen have been overcome, and that war, famine, and pestilence can be prevented, and that storms and other cataclysms of nature could be foretold and their effects minimized. But such a happy result has not yet come to pass. The woes of the Book of Revelation are still threatening, and it is equally true that its promises of a new heaven and a new earth are slowly being fulfilled. A clear diagnoses of the causes of human woes will inevitably lead to their amelioration.

The editorial in the New York Times quotes an authoritative study made by the Assistant Director of the Red Cross Societies. It says:

"War, pestilence, famine and cataclysms of nature have taken toll of 62,000,000 human lives since the outbreak of the World War. This is the estimate advanced on Thursday at Washington by the Assistant Director of the League of Red Cross Societies. By categories war has accounted for 9,000,000 lives, civil war for 6,000,000, famine for 6,000,000, epidemic for 40,000,000, and earthquake and flood for 2,000,000. The

uneasy conscience of mankind, seeking for an alibi, may stress the fact that two-thirds of the grisly harvest has not been the work of man, though he certainly did his bit in accentuating the effects of famine and disease."

There were 50,000 United States soldiers killed in the World War, but during the period of the active participation of the United States in the war, ten times that number of American people died from influenza.

The toll of influenza deaths in New York State for the year June, 1918, to June, 1919, is given on page 93 of the August first number of the Official Bulletin of the New York State Department of Health. The normal number of deaths from influenza and pneumonia for the period would have been about 20,000, but the actual number was about 70,000—an excess of 50,000, or the number of soldiers of the entire United States killed in battle.

The great argument against war is that it means death for a large number of citizens. Yet the studies of the Red Cross Director show that the World War caused less than one-third as many deaths as epidemic, and earthquake, and flood during the same period. The figures given

War	12,000,000
Epidemic	40,000,000
Earthquake and flood	2,000,000

The figures are the more striking because pestilence was not associated with the armies in the World War, but on the contrary, the armies were largely free from epidemics while civilians in quiet life were slain by the tens of thousands. The editorial says:

"First in rank among the visitations of nature has been the influenza, the secret of which is still to be traced and mastered. It has been estimated that between May, 1918, and March, 1919, the 'flu' took 25,000,000, or not far from 2 per cent of the entire population of the world. In India it has been deduced from the results of the census of 1921 that between twelve and thirteen million people must have perished during the epidemic. Entire regions in Africa were swept clean of life, and one can only conjecture what the death totals were in the interior of the continent, concerning which no definite information is available. In the United States the deaths in 1918-19 were nearly 550,000, and the total for the five years up to 1923 has been estimated at 750,000. The outbreak of 1922, though less virulent, took nearly 17,000 lives in Great Britain during the first three months of the year."

taught to recognize the symptoms, nor how they may spare the time from their multitudinous duties for physical examination of children

The prevention and control of school diseases is evidently a problem the solution of which requires the co-operation of all school elements and especially the joint action of medical school inspectors, school authorities and parents

G M P

CHEMICAL PATHOLOGY Being a Discussion of General Pathology from the Standpoint of the Chemical Processes Involved. By H. GIDEON WELLS, Ph.D., M.D. Fifth Edition. Octavo of 790 pages. Philadelphia and London, W. B. Saunders Company, 1925. Cloth, \$8.50.

H. Gideon Wells's book on "Chemical Pathology" has now reached its fifth edition, which fact alone serves to indicate its great value. It discusses pathology from a viewpoint that is becoming more and more important, namely, the chemical one. Only the future can decide just how important chemical pathology is and particularly its relationship to pathological anatomy. As the author comments in his preface much theoretical consideration has been included, the purpose being to stimulate investigation of all problems that so vitally concern the clarification of disease processes.

The work includes many sterling chapters. The one on "Pathological Pigmentation" being an exceptionally good one. Special attention must be called to the chapter on "Lipoids," which is occupying so much space in European literature.

The book is put together in a manner that is very complimentary to the publishers. As a whole, no medical library is complete without it.

S. R. SLATER.

GYNÉCOLOGIC UROLOGY By LYNN LYLE FULKERSON, A.B., M.D., F.A.C.S. Octavo of 247 pages with 166 illustrations including 86 original and 14 color plates. Philadelphia, P. Blakiston's Son and Company, 1925. Cloth, \$6.00.

This small book of 227 pages is of value because of its title as it calls to the gynecologist's attention the need of a knowledge concerning those organs so intimately connected with his more restricted field. The book is well written and well illustrated but many conditions, peculiar to women are not mentioned while some conditions, such as ptychitis of pregnancy should be dwelt with more exhaustively.

Despite some omissions this book can be well recommended.

G W P

A MEDICAL FORMULARY By E. QUINN THORNTON, M.D. 12th Edition, revised. 16mo of 352 pages. Philadelphia and New York, Lea and Febiger, 1925. Cloth, \$2.50.

This is an ideal book for the general practitioner who desires an up-to-date formulary. This revision conforms with the many changes made in the United States Pharmacopoeia Tenth Revision which alone recommends it to the thoughtful physician who wishes to prescribe scientifically and not according to the dictates of proprietary concerns who emphasize their products as superior to those of the Pharmacopoeia.

The author has been painstaking in introducing changes that have taken place in recent years in the treatment of Diabetes Mellitus, Syphilis, Scarlet Fever, Rhus Poisoning, Typhoid, Gastric and Duodenal Ulcers etc. making it valuable in this respect to those who wish a brief resume in these advances. The diseases are arranged alphabetically and the indications for the use of each formula is also an added feature.

FREDERICK SCHROEDER.

A SYSTEM OF CLINICAL MEDICINE. Dealing with Diagnosis, Prognosis, and Treatment of Disease for Students and Practitioners. By THOMAS DIXON SAVILL, M.D., Lond. Seventh Edition. William Wood & Company, New York, 1925. Price, \$9.00.

The seventh edition of this English book under the editorship of the widow and assisted by such men in English medicine as Rolleston, Patterson and Langdon Brown is really clinical.

The scheme followed and originating with the author in presenting the subject is the tracing of symptoms, relating to a part or organ in the order of common occurrence to their causes. Symptoms and physical examination are emphasized, etiology, pathology and treatment have appropriate sections. The laboratory aid is not discarded but so given that one may know what is essential to ask or look for—something of extreme importance in this day of too frequent routine laboratory quests where often a complete blood chemistry is simply a wild stab and hope that something will turn up.

Excellent chapters are given to female diseases—the skin and nervous system—again, all extremely practical—and adding materially to its clinical value.

The author simply makes the book interesting and at times fascinating. It is the type of book that could not be written by anyone who was not himself an eminent clinician.

HENRY WOLFER.

DISEASES OF INFANTS AND CHILDREN. By HENRY DWIGHT CHAPIN, A.M., M.D., Consulting Physician, New York Post Graduate and Willard Parker Hospitals, and Lawrence Thomas Royster, M.D., Professor Pediatrics, Pediatric Department of the University of Virginia. Fifth revised edition. William Wood & Co., New York, 1925. Price, \$6.00.

This is the fifth edition of the work originally written by Chapin and Pisk. Dr. Pisk's death required a new associate and therefore Dr. Royster collaborated with the senior author in the present edition. This work has been enlarged and rewritten so as to bring it thoroughly up-to-date. The excellent original illustrations have been retained and added to so that the book still stands out as a compact well arranged treatise on pediatrics. It is remarkable how well the authors have covered the vast field of medicine in a condensed well written and easily read volume of which the text is simple enough for the medical student and general practitioner and still technical enough for the pediatrician or special student in children's diseases. The tendency in the recent past has been to elaborate and enlarge text books on pediatrics or to get away from the single volume work and it really is pleasing to find at least one of the established books retaining its character of condensation and simplicity.

WM. HENRY DONNELLY.

SURGICAL CLINICS OF NORTH AMERICA. Published every other month by the W. B. Saunders Co. Phila. and London. Per Clinic Year (6 issues), Cloth, \$16.00. Paper, \$12.00. Volume 5, Number 1, February, 1925 (New York Number).

There is sufficient clinical material in this number to keep one busy for a number of weeks reading and digesting it. Of special interest are the clinics of Dr. Pool on gonorrhea, of Dr. Berg on gastric-duodenal ulcer, of Dr. Coley on sarcoma of long bones, or Dr. Moorhead on traumatic surgery. There is a host of others no less important or instructive.

HERMAN SHANN.

Volume 5 No. 2 April 1925 (New York Number)
Volume 5, Number 3, June, 1925 (Mayo Clinic Number)

The issuing of the various volumes of the Surgical Clinics of North America are always looked forward



BOOK REVIEWS



A SYNOPSIS OF MEDICINE. By HENRY LETHBRIDGE TIDY, M.A., M.D., B.Ch. (Oxon), F.R.C.P. (Lond), Assistant Physician to St. Thomas' Hospital, Physician to the Royal Northern Hospital, Fourth Edition, Revised and Enlarged. William Wood and Company, New York, 1925. Price, \$6.00.

The senior medical student, the busy physician and the instructor will find this book gives material assistance in reviewing the subject of medicine. Many useful points, perhaps forgotten, will be brought to his attention again, and the review it affords of many rarer medical subjects will amply repay one for the time not usually devoted to such topics. As a stimulus and guide post for the necessity of further study of a given disease, the book too has a definite use. The general and individual arrangement of subjects is excellent and the field of medical diseases is clearly but not too briefly summarized. Occasionally an omission of value is noted as carbon monoxide poisoning and the estimation of basal metabolism in hyperthyroidism. Where by necessity such a vast subject must be confined to a small volume the sections devoted to treatment always appear to be less satisfactory than the others. Of the many books "providing a synopsis" of medicine this will be found most complete and properly employed, of value to every physician.

HENRY WOLFER.

IMMUNOCHEMICAL STUDIES Edited by CARL H. BROWNING, Gardiner Professor of Bacteriology in the University, and Director of the Laboratory of Clinical Pathology, Western Infirmary, Glasgow. Contributors: C. H. BROWNING, Glasgow; M. KOSAKAI, Japan; T. J. MACKIE, Edinburgh; T. TANIGUCHI, Japan; G. H. WILSON, Birmingham; and N. YOSHINARE, Japan. William Wood & Company, New York, 1925. Price, \$4.50.

This volume of 230 pages discusses detailed investigations by six contributors upon humoral aspects of immunity. The contents are made up of 8 chapters.

1. Introductory. On Antibody Action in General. By C. H. Browning.

2. Properties of Antigens as Exemplified by Globin and Haemoglobin. By C. H. Browning and G. Haswell Wilson.

3. Mature and Immature Antibodies—Alterations in Haemolytic Immune Body which occur during the Process of Immunization. By C. H. Browning and G. Haswell Wilson.

4. Constituents of Serum which influence Antibody Action—The Natural Haemolysis of Ox Serum from Guinea Pig Blood and Conglutination. By N. Yoshinare.

5. The Effect of Osmic Acid and other agents on the Affinity or Receptors for Immune Bodies and on their Antigenic Properties. By M. Kosakai.

6. Heterophile Antigen and Antibody. By T. Taniguchi.

7. Opsonic Action. By C. H. Browning.

8. Complement. By C. H. Browning and T. J. Mackie.

These detailed contributions on the complex agents which enter into our immune reactions offer interesting reading to the medical worker who has an interest in laboratory technique or in mathematics.

H. M. FEINBLATT.

ON WRITING THESES FOR M.B. AND M.D. DEGREES. By Sir HUMPHREY ROLLESTON Bart., K.C.B. 16mo of 28 pages. London: John Bale, Sons & Danielson, Ltd., 1925. Paper, 1 shilling.

A thesis is a conglomeration of words that ought never be written, if written, it ought never be published, if published, it ought never be read. The underlying principle of the thesis is correctly explained in this pamphlet. The candidate for the degree picks an intellectual fight with the Dean, and the contestants strike verbal blows indiscriminately both above and below the scientific belt. If medical literature is to be not an accurate report of careful observation and unbiased judgment, but nothing more than an intellectual bout, let us hope for another Alexandrian conflagration.

The above outburst is aimed not at the pamphlet reviewed but at the sinful practice of writing theses. The pamphlet itself is interesting reading, it is also instructive. If the candidate is compelled by custom to write a thesis in classical style, he must fall in line or do without the degree. This pamphlet contains a number of valuable pointers, a knowledge of which will give the candidate an even break with the Dean.

FREDERICK DAMRAU.

SUBMUCOUS ENDOCAPSULAR TONSIL ENUCLEATIONS. With discussion of the evolution of knowledge of the tonsil as a disease producing factor and various methods of enucleation. Excerpts from Clinics of Charles Conrad Miller, M.D. The Oak Press, Chicago, 1925.

This is a book of two hundred and eighteen pages which the author chooses to call a monograph on the subject of "Submucous Endocapsular Tonsil Enucleation." The first two pages, some of the illustrations, and only a comparatively few of the following pages are devoted to the elucidation of the subject of the author's treatise.

The remainder of the text is a very interesting and instructive exposition of the subject of the tonsil, its diseases, complications and surgery. There is also enlightening information on the bacteriology and structure.

The almost complete reprint of Wessely's article on "Meningeal Infections Following Peritonitis" is one of the features of the book.

The author has strayed far from the subject matter of his original intention, with the result that his book bears all the earmarks of a good textbook on the subject of the tonsil and certain of its phases.

The title is misleading and does not do justice to the contents of the book. The addition of an index and a bibliography would enhance its value and make it a deserved addition to the textbooks on the subject of the tonsil.

HEALTH THROUGH PREVENTION AND CONTROL OF DISEASES. By THOMAS D. WOOD, M.D., College Physician and Adviser in Health Education Teachers College, Columbia University and HUGO GRANT ROWELL, M.D., Physician Horace Mann Schools, Teachers College, Columbia University. World Book Company, Chicago, Ill., 1925.

The all-including and pretentious title of this booklet is rather misleading inasmuch as the authors simply present a brief review of the role of teachers and nurses in the problem of freeing the school from becoming the hot-bed for the spread of infectious diseases among pupils.

The discussion of the important role of the medical school inspector is entirely omitted. The booklet gives and quotes the practices of various cities with respect to lay inspection of school children their exclusion readmission, etc. It also gives instructions how to recognize the onset of various school child infections. It does not state how the teachers should be trained and

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ASTHMA AND THE CALCIUM ION*

HAROLD A. PATTERSON, M.D., F.A.C.P.

SONYEA N Y

THE subject of asthma has been approached from various angles. Early opinion considered it as a pure neurosis. Some have attributed it to errors in diet without regard to any definite opinion as to the nature of such errors. Others have attributed it to reflex origin, with the reflex arising in the nose, sinuses, gastrointestinal canal or in fact, in any organ or tissue of the body whose afferent nerves are able to mediate with the pulmonary branches of the vagus. The most recent suggestion is that of anaphylaxis. This idea of sensitization, however, must not be interpreted too narrowly, since with our present knowledge of the subject, hypersensitivity can not be considered as the only factor active in the productions of paroxysms. Asthma is not as simple as that. Indeed, the subject must be approached from a very broad viewpoint. The underlying reacting capacity of the individual's bronchial neuromuscular mechanism must be taken into consideration as well as the exciting cause.

Inheritance is regarded by many as a factor of considerable importance in sensitization. It is also a matter of common knowledge that many hypersensitive individuals are asthmatic. In fact, Wells is authority for the statement that fatal anaphylaxis is practically limited to asthmatics. All these facts seem strongly to indicate that there is something in the make-up of the asthmatic patient which makes him susceptible to the action of proteins, reflex stimulation, climatic change and physical and chemical irritants.

Asthma has long been looked upon as a disease without an anatomical basis, largely because of the fact that it has been considered as a neurosis, which as such would naturally be regarded as having no pathological anatomical changes. Recent and painstaking investigation, however, would seem to indicate that asthma has apparently an essential pathology which consists in a

thickening of the entire bronchial wall that at times almost obliterates the lumen of the tubes. Thickened musculature and enlarged mucous glands probably afford an instance of anatomical changes resulting from an over-stimulation of a physiological process for in asthma the vagus nerve, which stimulates both the musculature and the secretory glands of the bronchi, is in a state of hyper-irritability. Consequently, these tissues are subject to prolonged vagus action.

A discussion of asthma, therefore, should include not only the exciting agents but also those factors which are accountable for the paroxysms. Consequently, the following subjects require careful consideration.

1 Such stimulating factors as are associated with climatic change or physical and chemical irritants.

2 Inflammations and other irritations which cause reflexes to express themselves in the pulmonary branches of the vagus, such as those arising in the nose, sinuses, gastro-intestinal tract, genital system and even the lung itself.

3 Substances to which the patient becomes sensitized—such as pollen, food, animal emanations, etc.

4 The susceptibility of the patient to react to causative agents. Under this heading comes—

(a) Hyper-irritability of the bronchial division of the vagus nerve, usually with a general vagotonia as well, (b) A relative increase in the potassium as compared with the calcium ions in the cells of the bronchi, (c) Changes in those incretions which disturb the balance in either the nerve mechanism or the ion content of the cell and probably the colloidal phases of the cell itself, particularly the thyroid, the pituitary and the parathyroids.

The first two of these constitutes factors whose potency has long been recognized and with which you are all doubtless familiar. It is with the two latter sets of causes, particularly with the last, that this paper is especially concerned.

The relationship of asthma to the visceral

* Presidential Address 1925 read before the Livingston County Medical Society at its Annual Meeting at Geneseo New York, on October 13 1925

to not only by the surgeon, but by the general practitioner as well, for they give, in the most concise and reasonable way, the best summary of the recent work in surgery and diagnosis.

The procedure employed by the outstanding surgeons of the country is made possible to a large group of surgeons and practitioners by these volumes.

The April volume of this year's clinics contains an excellent clinic by Dr Charles Gordon Heyd of Post Graduate Hospital, on "Hyperthyroidism, and Its Diagnosis and Surgical Treatment." Dr Pool and Dr Erdmann both have very good clinics on the gall bladder and the bile ducts, giving an excellent summary of the present day accepted surgical treatment for acute conditions involving these organs.

In the June issue, from the Mayo clinic, Dr Judd has an excellent clinic upon diseases of the biliary tract, but the outstanding clinics in this issue are those of Dr Charles Mayo, and Dr Balfour on the stomach, and duodenum.

The interest in the last mentioned clinics is greatly stimulated by the very interesting report of Dr Mann upon experimentally produced peptic ulcers. These volumes should be read by all general practitioners and surgeons.

HERBERT T WIKLE

Volume 5, Number 4, August, 1925 (Chicago Number) Volume 5, Number 5, October, 1925 (St Louis Number) Volume 5, Number 6, December, 1925 (Philadelphia Number)

Whether contributed by the surgeons of Chicago, Philadelphia or St Louis, the quality is the same, the best there is in surgery. It is American surgery of the highest order. The wealth of material presented, the brilliant discussions, and the logical conclusions as to treatment make fascinating reading as well as instructive and enlightening. One does not have, nowadays, to travel hundreds or thousands of miles to see the master surgeons operate, for with a little power of imagination one can visualize almost every step of the operative technique so beautifully and profusely illustrated in the Clinics.

HERMAN SHANN

SCOLIOSIS-ROTARY LATERAL CURVATURE OF THE SPINE

By SAMUEL KLEINBERG, MD, FACS, Assistant Surgeon, New York Hospital for Ruptured and Crippled, Chief of Orthopedic Service, Israel Zion Hospital of Brooklyn. Paul B Hoeber, Inc., New York, 1926. Price, \$6.00.

For years, orthopedic surgeons have tried to wrest from nature the secret of the mechanics of rotary lateral curvature of the spine in the hope of evolving a rational treatment which could be depended upon to correct the deformity or prevent it. An assignable etiologic factor is found in but fifteen or twenty per cent of all cases and for that reason, few have had sufficient enthusiasm to write a volume on the subject.

Kleinberg's interest in the problem extends over a period of years, and his opinions are based in the main on abundant material from the New York Hospital for Ruptured and Crippled. His exposition of the subject contains no radical departures from accepted present-day measures. Refinements of management are dealt with comprehensively, and the relative merit of different modalities are soundly evaluated.

The first five chapters are a bit uninteresting, intimate anatomy, physiology and pathology usually are—but they are essential to a clear understanding of the gymnastic, mechanical and operative phases of treatment which fill the nine later chapters. The essential message contained between the covers may be summed up as follows:

Prophylaxis is based upon periodic health examinations, finite attention ought to be paid to the correc-

tion of minor postural errors not because they are the forerunner of true scoliosis but due to the fact that he has noted improved health follows their correction and feels that they are frequently overlooked in routine physical surveys—such as are given to school children. or mild types of rigid scoliosis, gymnastic exercises, passive stretching with or without corrective braces or corsets are approved of.

The majority of rigid scoliotics need forcible correction by plaster jackets. Various methods are discussed—greatest enthusiasm being expressed for the suspension frame with the spine in hyperextension—or better still, complete recumbency for eight weeks on a convex frame with considerable traction on both head and feet.

Operative fixation to maintain the improved position acquired by the frame is advised in selected cases, after the curve is reduced to a minimum. The author's operation is essentially a spine fusion, a combination of the methods of Hibbs, Albee and Forbes' technique, with the addition of a beef bone splint which Kleinberg feels, adds firmer internal fixation.

This is, of necessity, a technical treatise—well done, worth-while, and a splendid reference book for any medical library.

D E. McKENNA.

LECTURES ON NUTRITION. A Series of Lectures given at the Mayo Foundation and the University of Wisconsin, Minnesota, Nebraska, Iowa, and Washington (St. Louis), 1924-1925. 12mo. of 243 pages, illustrated. Philadelphia and London, W B Saunders Company, 1925. Cloth, \$2.50.

If this book is released for the general public, it is feared they will not understand its contents, as most of the lectures are beyond their intellectual depths and interests. It contains six lectures, which are largely the republication of data that have been published elsewhere. The subjects considered are Basal Metabolism, the Proportions in which Protein, Fat, and Carbohydrate are Metabolized in Disease, Muscular Activity and Carbohydrate Metabolism, our present knowledge of Vitamins, and relation between Fertility and Nutrition. Physicians and chemists who have not kept up on these subjects will find the book of value.

J ARTHUR BUCHANAN

OUR PRESENT KNOWLEDGE OF HEREDITY. A Series of Lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington (St. Louis), 1923-1924. 12mo. of 250 pages, illustrated. Philadelphia and London, W B Saunders Company, 1925. Cloth, \$2.50.

Castle opens the book with a lecture on "Heredity The General Problem and Historical Setting." He does not define heredity, nor does he state what "The General Problem" is. The historical setting of heredity, a fascinating part of the development of biology, is so briefly considered in this lecture that it contains but little of its interesting features. Practically none of the terms used in this lecture are defined, and unless the reader is a biologist or a physician, the chances are that he will fail to appreciate the lecture. The last two paragraphs of the lecture are important. They speak a spirit of conservatism which is disregarded by those who follow Castle in the book.

McClung lectures on "The Heredity of Sex," Delfsen on "The Inheritance of Acquired Characters" and Wells on "The Influence of Heredity on the Occurrence of Cancer" and Maud Slye on "Heredity in Relation to Cancer." Most of the data presented has appeared elsewhere and in more detail. Guyer closes the book by a lecture on "Eugenics." A good deal of the data on which he bases his arguments have been discarded by psychologists.

J ARTHUR BUCHANAN

The altered nerve and cell reactivity of the asthmatic individual is interesting. It would really seem that asthmatics belong to a particular group of individuals possessing a vegetative nervous system in which parasympathetic activity prevails. Now in order that such a status may exist, certain conditions must obtain in the body cells themselves. In other words, increased parasympathetic action (vagus in asthma) presupposes a relative increase in potassium as compared with calcium ions in the cells—i. e., either an actual decrease in the calcium or an absolute increase in the potassium. It is quite probable that this state of relatively increased parasympathetic potassium activity in the cells may be partly inherited and partly acquired.

Possibly at this point it may be interesting to speculate just where the reaction takes place in asthma. As has already been indicated, it would seem in many cases that there is a close relationship between the asthmatic and the anaphylactic reaction. In fact, in those cases where the asthmatic manifestations are apparently due to the influence of foreign protein, sensitization seems identical. Moreover, the weight of evidence seems to favor the view that the principle state of activity in anaphylaxis is in the cells themselves. Hypersensitive cells during the reactive stage show change in their colloid phases which can be removed by desensitization. That this change in the colloidal arrangement of the cells is responsible for the shifting of the ion equilibrium may be conjectured. At any rate, that the change is evidenced by lessened sympathetic action which is associated with a relative deficit in the calcium ions and an increased permeability of the cell membrane and an associated hyperactivity on the part of the parasympathetic nerve is definite. Further speculation in this realm, however, would lead us too far afield and hardly lies within the scope of this paper.

Since many asthmatics also suffer from other manifestations of protein hypersensitizations, it is important to consider whether there is not some defect in their neuromuscular mechanism—either a decrease of sympathetic irritability or a decrease in the calcium ions of the cell on the one hand, or a hyperirritability on the part of the parasympathetics, or an increase in the potassium ions in the cell on the other hand—which antedates and underlies an asthmatic syndrome. It is quite easy to understand how these individuals who manifest hyperirritability on the part of the neurocellular mechanism of the bronchi would respond with an asthma whenever this system is unduly stimulated, either reflexly or by such a condition as protein sensitization or by changes in weather and climate or mechanical or chemical irritants. Furthermore, in considering the causation of this underlying condition, one must bear in mind the fact that certain glands of internal secretion stand in an important relationship

to calcium metabolism and the activity of the sympathetic and the parasympathetic systems. In other words, asthma can be regarded from this viewpoint, as a condition in which the bronchial neurocellular mechanism reacts profoundly to stimuli that do not effect, apparently, normal individuals, that is, a local vagotonia, according to Eppinger and Hess. But in this sense, vagotonia which has hitherto been regarded as a hypersensitive condition of the parasympathetic nerves, must be given the broader definition of Pottenger. It thus becomes a condition not of nerves alone but of the cells acted upon as well. A condition in which the ion content of the cell is disturbed, the permeability of the cell membrane increased and the potassium-calcium equilibrium disturbed by a relative overbalance in favor of potassium so that a reaction on the part of the cells at least when stimulated by the parasympathetic nerves results in a reaction which is beyond the bounds of physiological activity. Such a reaction could, of course, be precipitated in two ways, either by direct action upon the cells or by stimulation of the bronchial fibers of the vagus nerve.

Applying the principle of the action of the neuro-muscular mechanism to asthma, the possibility of relaxing the bronchial spasm and relieving the bronchial secretion by changing the electrolytic content of the cells suggests itself as a therapeutic possibility. The literature contains an account of cases in which this has been done. In these cases an attempt was made to introduce sufficient calcium to restore the normal neurocellular equilibrium of the bronchial tissues, in as much as an increase in the relative amount of calcium in the cell causes the same physiological action as stimulation of the sympathetic system.

The treatment described is as follows. The patients under trial were kept in bed continuously. Treatment was begun with small amounts—5 c.c. of a 5 per cent solution of calcium chloride intravenously—and increased to double the initial amount if necessary. The injection was repeated every few days and the effect carefully observed. It was found best to inject the solution slowly, taking from four to five minutes for 10 c.c. in order to avoid mild untoward effects. At this rate of injection a slight facial flush was noted and the patient was conscious of a feeling of warmth, most pronounced in the face and in and over the abdomen. The blood pressure rose from 5 to 10 points following the injection but usually returned to normal within thirty minutes. The pulse rate in asthmatics sometimes dropped from 10 to 20 points per minute but persisted at the lower rate for only a short period. With more rapid injection the patient became decidedly uncomfortable, complaining of a sensation of intense heat in the skin with profuse perspiration, a sense of constriction

nerves is rather complex. For convenience, the various syndromes manifesting themselves during the course of visceral diseases may be classified according to the manner in which they effect the two components of the vegetative nervous system. The symptoms accompanying these diseases fall either into the group of sympathetic syndromes or into that of parasympathetic syndromes, depending upon whether the irritability of one or the other system predominates. Thus, in asthma, the spasm of the bronchial musculature and the increased secretion which is evident during the paroxysm, constitutes the asthmatic syndrome. The rapidity of heart action and the increased respiratory effort during asthma may be looked upon as incidental symptoms and not as an integral part of the syndrome. In this condition, there is an increase in the tonus of that portion of the sympathetic which supplies the bronchial musculature and mucous membrane. Its causes may be as diverse as the irritants that can be applied either to the nerve centers giving origin to the pulmonary fibers or to the peripheral nerves that are in reflex relationship with them.

It is a well known fact that in the bronchi, the vagus of the parasympathetic system and the sympathetic are antagonistic in action. Thus stimulation of the vagus causes contraction or spasm of the bronchial musculature and an increase in bronchial secretion, while stimulation of the sympathetics, on the other hand, relaxes the bronchial musculature and decreases bronchial secretion.

This antagonistic relationship of these two components of the vegetative system is definite, as may be inferred from the fact that the commonly successful method of relieving the paroxysms of asthma consists either in using remedies which will inhibit the action of the vagus or those which will cause a relative increase in the antagonistic sympathetic action. Atropine is a drug which produces the former result, but since it can not be given in full inhibiting doses without causing great discomfort to the patient, its use is of limited value. Adrenalin has been the most successful individual remedy heretofore employed to combat the paroxysm. It effects this result by producing the same action upon the bronchial musculature as though the sympathetic nerves were stimulated and so tends to restore the normal sympathetic, parasympathetic balance. Unfortunately, however, its usefulness is greatly limited by the fact that its action is transitory. It will relax the spasm and afford relief within a few minutes after it is injected, but the duration of its effect is but a few hours after which the injection must be repeated. The effect in this instance is due to stimulating the sympathetic mechanism sufficiently to inhibit the vague and relax the spasm. This action may effect both the nerves and the ions in the peripheral cells.

A consideration, therefore, of the relationship

between the ion content of the cell to the vegetative nerves is in order. Authority is not lacking for the statement that action in the neuromuscular apparatus depends to a great extent upon the condition of the body cells. Furthermore, the condition of the body cells determines to a very remarkable extent their own action and likewise the manner in which they will react to nervous and chemical stimuli. Under differing conditions the cell may differ physically, that is to say, in the physical character of the colloids which compose it, or in its electrolytic content and each change alters its reactivity. Among other electrolytes the body cells contain calcium, potassium and sodium in certain relative proportions. A variation in the relative amount of these different ions contained in the cell may alter its function in the same manner as though its nerve equilibrium were disturbed. Indeed the ion content is an essential part of the neuromuscular mechanism.

A considerable wealth of pharmacological observations—some of which, such as the classical studies of Ringer in 1881 to 1883, were made long before sympathetic and parasympathetic action was understood—indicates that the cellular electrolytes can be divided into sympathetic and parasympathetic groups, after the fashion by which certain drugs, much as adrenalin, atropine and pilocarpine are classified. This possible division of cellular electrolytic content emphasizes the intimate relationship between the innervation and the ion content of the cell as it is understood from the viewpoint of vegetative neurology. In fact, experimental evidence indicates quite definitely that stimulation of sympathetic and parasympathetic systems produces different effects upon the cells of an organ and may even cause these cells to give out into the blood stream certain definite substances which vary according to which system of nerves is stimulated. With the newer conception of physiology, bio-chemistry and bio-physics, one may assume that nerve stimulation results in changing the cell so as to cause it to take from or give out certain substances into the blood stream. It is quite probable that this effect is partially caused by producing changes in the colloids of the cells. There is no doubt that action in body cells is associated with changes in the permeability of the cell membrane and the binding more firmly or the giving off of various ions. In this connection the work of a number of observers is considered to have established the interdependence of the sympathetic nerves and the calcium ions in the cell. This conception is of fundamental importance for the understanding of the action of the neurocellular mechanism and not only suggests the manner in which certain diseases may produce their effects upon the organism but also further affords certain definite principles of rational therapeutic attack.

THE INEFFICACY OF INTRAVENOUS CALCIUM INJECTIONS IN ASTHMA, HAY FEVER, AND ALLIED CONDITIONS

By AUGUST A. THOMMEN, M.D.

NEW YORK

FEW conditions demand as much therapeutic resourcefulness as chronic asthma. Among chronic ailments, asthma with its complications doubtless causes the greatest degree of suffering over the longest period of years. When, therefore, a therapeutic measure is offered as a cure, or even only as another method of obtaining relief, it is bound to create a considerable degree of interest and enthusiasm. This enthusiasm, however, must needs be tempered by the wisdom gained from past experiences, in which various other modes of therapy were similarly offered, only to be found wanting upon adequate trial and investigation.

The purpose of this paper is to report the failure, at our hands, of a mode of asthma therapy, viz., intravenous calcium injections which, nevertheless, has been reported upon favorably by others.

Pottenger¹ advocated this method of treatment on the basis that calcium deficiency in the cells of the bronchial trees was responsible for the asthmatic paroxysm. This deficiency, he thinks, is due to either a hyperactivity of the vagus, causing an increased potassium content in the cells, or to a hyperactivity of the sympathetic system which results in a direct decrease in the calcium content. He reported four cases as being entirely relieved, some with as few as three injections.

Besides this neurochemical conception, various other theories have been offered to explain its action. Some have thought that it inhibits the proteolytic processes, or so modifies them as to render the protein split products less toxic, while others have conceived of its acting in such a manner as to lessen nerve-ending irritability. All such attempts at rationalizing empiricism tend merely to emphasize the fact that the real test of any such mode of therapy lies in the results obtained.

In all, nineteen cases of asthma, belonging for the most part to the non-sensitive group, were intensively treated by this method. Two preparations were used: (1) a 5 per cent solution of calcium chloride in doses of 5 to 10 c.c., (2) a proprietary in the form of a 10 per cent solution of calcium urea. Some cases were treated exclusively with one or the other. The majority, however, received injections of both. A total of 198 injections was administered. They were apparently very well borne, for no untoward effects were observed. In several instances the

possibility of a resulting kidney irritation was considered, but not substantiated. The injections were invariably accompanied by a sensation of intense heat, felt most commonly in the chest, the temples, and the rectum, occurring within a few seconds of the beginning of the injection. This evidently disagreeable sensation is very fleeting, and is easily controlled by giving the injection slowly. The caustic, escharotic nature of calcium, evidenced when injected into the subcutaneous tissues, was not observed. It is, however, a possible accident which must ever be kept in mind.

With the exception of two children, aged 11 and 13, the group was composed of adults, seven males and ten females. The duration of illness varied from three years to thirty-two years, with the average about ten years. The injections were administered bi-weekly in most cases, in others, every day. One patient, who was considered a particularly good subject, received injections twice daily for four successive days. The number of treatments given was as follows:

One received 5 injections, four received 8 injections, six received 10 injections, five received 12 injections, two received 13 injections, one received 15 injections.

Results—No marked effects were observed in any case. When used as a succedaneum for adrenalin, to control the paroxysm, it proved entirely valueless. In a few instances an apparent improvement occurred with the first injection. This, however, was always short-lived, and could easily be explained on the basis of the psychological effect produced by a somewhat impressive mode of therapy, or as a natural period of amelioration.

Another means whereby the value of intravenous injections of calcium might be established, perhaps more accurately, is to observe its effects in those allergic conditions in which the various syndromes are more definite and clear-cut, and less apt to be masked by co-existing complications and sequelae. Hay fever, urticaria, angio-neurotic oedema and serum-sickness lend themselves in something of an ideal manner to the study of the efficacy of any particular mode of therapy. Calcium administered intravenously has been recommended for these conditions in the same positive manner, and with a show of the same type of enthusiasm, as in the case of asthma. Any estimate, therefore, arrived at in regard to these ailments, might with reason be used as an aid in the interpretation of the results obtained in the treatment of asthma.

Injections of pollen extracts, given prophylac-

¹From the Department of Bacteriology and Immunology Division of Immunology, Cornell Medical School, First Medical Division, New York Hospital.

¹Pottenger, E. M. California State Medical Journal, July 1923, vol. 21, p. 293.

in the throat and a feeling of nausea that persisted for upwards of thirty minutes

In the report of a small series of individuals so treated by Pottenger, to whom the writer is much indebted for material used in this paper, improvement is stated to have resulted in each case after the injection of a series of from 5 to 14 doses of calcium chloride. The administration of calcium is said to have relieved both the bronchial spasm and the bronchial secretion as would be expected from the physiological control of these tissues, since both muscular and secreting glands are activated by the vagus nerve and inhibited by the sympathetic with which calcium works in harmony.

Calcium has long been recommended by mouth in the treatment of asthma but apparently without any definite understanding of how it acts or what doses are necessary to produce any particular effect. Since it is now known that calcium forms an integral cellular constituent and is necessary for sympathetic nerve action, one has a basis for its use founded on rational biological principles by increasing sympathetic action in the neuromuscular mechanism of the bronchi. Vagus action is depressed or inhibited and if the action is sufficiently strong the asthmatic paroxysm is relieved. How long its action would last must be determined empirically by experience. The question of dosage is one that will require considerable attention. It is, no doubt, an individual matter depending upon the degree of disparity between the sympathetic and the vagus tonus in the bronchial neurocellular mechanism in each case.

In asthma the action of calcium upon the cells results in the same physiological process as the administration of adrenalin. Adrenalin heretofore has been the most successful remedy in the relief of paroxysms but its disadvantage lies in the short duration of its action. Experience seems to indicate that the action of calcium will be of more prolonged duration and consequently that it may prove more efficient in supplementing the action of adrenalin and relieving the asthmatic paroxysm for a longer time.

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A CASE OF SUBACUTE INFECTIVE ENDOCARDITIS WITH MYCOTIC ANEURYSM AND MENINGEAL SYMPTOMS *

By DAVID P WALDMAN, M D, and MORRIS H KAHN, M A., M D

NEW YORK

THE following case of subacute infective endocarditis is of unusual interest because of the presence of mycotic aneurysms, one of which was mistaken for a submaxillary lymphoid gland, and the presence of meningeal symptoms.

Case Report—H G, aged 20, gave a history of occasional tonsillitis, and at the age of 14, aching pains in her joints but without fever. Her present illness began two months before she came under our observation with pains in the joints and slight fever. For two weeks she had sore throat and soon developed a swelling on the left side of the neck below the angle of the jaw. She had fever, became pale and for one week complained of pains across the abdomen and in the loins.

Physical examination showed slight pallor and apparent loss of weight. The tonsils were enlarged and adherent to the pillars of the fauces. There was a group of petechiæ with white centers over the right chest and neck. In the middle of the right palm and instep there were two fading subcutaneous nodules. There were no petechiæ in the conjunctivæ.

The heart was enlarged with a suggestion of a systolic thrill at the apex. There was a systolic musical "canary bird" murmur over the apex, axilla, and precordium and a blowing systolic murmur over the precordium. There was also a faint diastolic murmur over the sternum. The pulse was small.

Below the left angle of the jaw there was a swelling the size of a walnut which was not moveable, not adherent to the skin, but which had a distinct arterial expansile pulsation. It gave the impression of an enlarged gland on first examination, but was definitely a mycotic aneurysm of the external carotid artery. The left radial pulse was smaller than the right. The femoral vessels were negative.

The lungs were clear. There was slight tenderness on pressure in the loins and over the spleen, but the latter was not enlarged. The extremities were negative.

A diagnosis of subacute infective endocarditis was therefore made.

On February 23, 1925, five days after this examination, the petechiæ were more numerous, scattered over the neck, chest and abdomen. A new subcutaneous painful nodule developed on the left thumb.

It was decided to try intravenous injection of the various anilin dyes that have been reported effective as bacteriostatic agents. On February

25, an intravenous injection of 10 c.c. of a 0.5 per cent solution of neutral acriflavine was given and on February 26, 15 c.c. of the acriflavine solution was given. There immediately was a sensation of burning of the eyelids and lacrimation, tingling of the lips, weakness, pallor of the face, flushing and a fleeting blotchy erythema. During the second injection, the patient vomited.

On February 28, it was found that the patient had slight rigidity of the neck and a slightly positive Kernig sign. This was interpreted as meningeal irritation, which symptom is found present in a considerable number of cases of subacute infective endocarditis.

The temperature ranged between 101.6 and 103.

A sister of the patient whose blood was found satisfactory as donor by hemolysis and agglutination tests was given injections of a stock vaccine streptococcus viridans. On May 1, transfusion of 250 c.c. of blood was made taken from this donor and injected into the patient. The blood count immediately before the transfusion was hemoglobin, 68 per cent, red blood cells, 2,464,000, white blood cells, 10,000, polys, 60 per cent, lymphos, 40 per cent. The day following the leucocytes were 15,000 per cmm with 92 per cent polys and 8 per cent lymphos.

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The interest in this case centers especially around the occurrence of a mycotic aneurysm of the left external carotid artery, located below the angle of the jaw. This mass was assumed to be an enlarged lymphoid gland until the diagnosis was made by Dr. Morris H. Kahn who was consulted in the case and directed the subsequent treatment.

Clinically, mycotic or bacterial aneurysms are of interest as they involve the peripheral arteries. Bacterial infection of the vessel wall is the most common cause of aneurysm and in most cases it is associated with some form of bacterial endocarditis.

In the larger arteries, septic emboli may lodge

* From the Cardiovascular Department, Beth Israel Hospital, New York City.

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In this study of hay fever, both Afenil and plain calcium-chloride were also used. The cases grouped themselves as follows:

- A—Undiagnosed cases, two
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In each instance an endeavor was made to give this mode of treatment an adequate opportunity to demonstrate its effectiveness. Hence, the number of injections was always in excess of that recommended.

In group A, the two cases belonged to the early type, with seasons respectively from about May 15 to June 6, and April 20 to May 10. From their histories of recurrent attacks, the former for thirty-eight years, i. e., since the age of four, the latter for ten years, and their symptoms, they are undoubtedly cases of hay fever, yet both gave negative skin and eye tests to the grasses and to a goodly number of tree pollens, except a strong extract of Scarlet Oak, i. e., 05 mg. of nitrogen per 1 c.c.

They received treatment with scarlet oak empirically, and nine injections each of calcium intravenously, three of which were given within the week just preceding the onset. It was very evident that neither the pollen extract nor the calcium had any effect on the onset, duration, or intensity of the symptoms.

In group B, fifteen cases were treated phylactically with appropriate pollen extracts, and a total of 60 calcium injections.

Six patients received 3 injections, six patients received 4 injections, three patients received 6 injections.

Results—They must be reported as negative, for there was no apparent difference from similar cases treated only phylactically.

In group C, an attempt was made to use calcium in an endeavor to bolster up the results obtained in previous years with pollen extracts in a selected number of cases.

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Conclusion—In view of these facts, one is constrained to record the conclusion that intravenous calcium therapy is of doubtful value in asthma, hay fever, and cognate conditions.

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ST. CATHERINE'S PARISH, NEW YORK

- 11 -

On 11/11/54, the following information was received from the Bureau of the Census, Washington, D.C.:

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conditions and it can be induced or made to return towards normal almost at will. It is not necessarily an indication for the use of diet but it does reflect a change in the blood supply and consequently in the physiology of the muscular tissues at least.

The premise from which the use of diet in arthritis originally arose was the observation that after severe operative procedures certain arthritics experienced an astounding benefit coincident with the incidental period of fasting which usually followed. Further studies showed that this fast was not the only factor involved and that stimuli of various kinds affecting the sympathetic system, such as excitement and great anxiety, the use of non-specific protein, as well as agents which tend to hasten metabolism, may also have a favorable influence upon the rheumatoid syndrome in certain cases. In order to explain on the one hand, the unfavorable action of focal infection at a distance, the effect of exposure, fatigue, over-eating, the menopause, the nature of Charcot's joint and the high incidence of arthritis in mid-life, and, on the other hand, to explain the action of factors making for convalescence, such as heat, massage, exercise, a reduced diet, pregnancy and metabolic stimuli like radium and arsenic it is necessary to admit a disturbance of underlying physiology expressing itself widely throughout the economy and subject to many influences.

It is clear, today, that the local metabolism is undoubtedly caught up in the problem of arthritis as stated by Nicholls and Richardson in their exhaustive monograph on morphology, and those processes which influence anabolism and especially those which hasten katabolism may be of great significance. The viewpoint that the physiology as a whole and the local metabolism in particular are concerned in the pathology of arthritis is of the highest importance. It explains the futility of depending upon any one measure in the treatment of this disease and also the importance of correlating various influences and modes of treatment. Even if one should grant that all cases of arthritis are due to local bacterial infection alone, the conception that bacteria are the agents which bodily remove bony tissue and bodily deposit it in the form of overgrowth is almost too primitive to be entertained. In both the physiology and pathology of bone it is fully accepted that chemical processes are at work and the changes in bony tissue characteristic of arthritis can be conceived in their entirety only with the aid of established chemical principles.

A consideration of the arthritic syndrome from the standpoint of physiology and bio-chemistry has thus led to a concept of this disease wider than that which regards it as a local bacterial invasion only. The use of a diet, massage, heat and many other measures can be understood and

applied with greatest success only when this wide angled vision is maintained.

The conception that the intestinal tract plays a rôle in arthritis finds wider acceptance today than it did ten years ago. One evidence of this is the multiplicity of establishments devoted to colonic irrigation and similar treatments (facetiously called colon filling stations). The application of these measures to a definite proportion of arthritics cannot be successfully denied. It must follow that these treatments partake something of the nature of the Augean stable, however, unless consideration be also given to that which is taken into the intestinal tract, namely, the food. It is precisely the nature of the food intake which determines that which is removed by irrigation. The use of diet, however, is very much more fundamental than measures which merely stimulate or evacuate the colon or ileum and operates quite independently of them.

Following the accepted viewpoint that most cases of arthritis are due to the propagation of bacteria in one or more localities, it is entirely conceivable that part of the influence of diet in appropriate cases may depend upon a reduction of the bacterial substrate. As a result of this fewer bacteria and bacterial products are presumably produced within the intestinal canal. This cannot be accepted, however, as the only explanation since in most cases the amounts of food normally present are very large and the small reduction of food sometimes adequate to achieve benefit is too slight relatively to be regarded as having large influence on the effective total substrate. If the matter were merely one of keeping the intestinal canal swept out and purged of bacterial products one should obtain larger results from purgative measures and from the use of acidophilus organisms, neither of which bears any constant relation to improvement. In fact, in some cases, on a reduced diet, convalescence has continued in the presence of constipation of four days standing and a marked rise in the æthereal sulphates as indices of so-called putrefactive processes. Furthermore, in border line cases the ingestion of large amounts of food may be followed within a short period of an hour or two by an increase of symptoms such as stiffness. The time thus involved is probably too short to permit of commensurate bacterial activity. It is common knowledge that even in health a great intake of food may induce hebetude and lethargy, probably through an influence on the blood flow, and there is reason to believe that it is through an influence on the blood flow that a curtailment of diet finds part of its effect in arthritis.

Experiments demonstrating circulatory changes in the muscles, elsewhere reported in part(1), suggest strongly that the normal physiology of these tissues is disturbed. The ordinary process of removal and utilization of at least one blood

in the vasa vasorum and produce a point of suppuration, later the overlying intima ruptures and in this way an aneurysm may be formed.

Stengel and Wolferth reported a number of cases of mycotic aneurysm of intravascular origin.¹ From the literature on the subject, they concluded that mycotic aneurysms arise in one of the following three ways:

1. From infected emboli in the lumina of vessels or in the vasa vasorum. Richey and MacLachlan have reported two cases in which both aneurysms had their beginning in the bacteria laden emboli which were swept off the affected heart valves, lodging in the bifurcation of the arteries involved.²

2. The settling of bacteria on the inner surface of a vessel or in the vasa vasorum.

3. Continuity or contiguity of infection from the aortic or pulmonic valves.

In our case, the early development of the aneurysm in the left external carotid artery suggests its origin to be purely embolic. At the time we first observed the case on February 17, 1925, the heart signs were considerable and there was tenderness over the spleen and in the loins, suggesting the possibility of multiple emboli having occurred.

¹ Stengel and Wolferth *Arch Int Med* 1923, Vol XXVI, p 527.

² Richey and MacLachlan *Arch Int Med*, 1922, Vol XXIX, p 131.

As noted in the case report, the left brachial and radial pulses became considerably smaller than the right. This persisted to the end. The explanation to be made of this is the development of a mycotic aneurysm of the left subclavian artery with mural thrombosis producing partial obliteration of the vessel.

The occurrence of symptoms of meningeal irritation is probably more frequent in cases of subacute bacterial endocarditis than is noted in the literature. In this case, the meningeal symptoms were not developed until several weeks before death. They are probably due to petechiae or to embolic effects in the meninges.

The efficacy of intravenous injection of dyes in this case cannot be judged by the results as the condition was much advanced when these measures were instituted.

SUMMARY

A case is reported of subacute bacterial endocarditis presenting an etiology in tonsillitis, joint pains, and the characteristic symptoms of fever, progressive pallor, extensive valvular heart involvement, numerous petechiae, symptoms of emboli in the spleen and kidneys, the development of mycotic aneurysm in the left carotid artery, and finally signs of meningeal irritation. The intravenous use of dyes and transfusion of blood from a donor immunized against streptococcus viridans were of no avail.

THE SIGNIFICANCE AND USE OF DIET IN THE TREATMENT OF CHRONIC ARTHRITIS*

By RALPH PEMBERTON, M.D.

PHILADELPHIA, PA.

I HAVE been asked to speak on the significance and use of diet in the treatment of arthritis. I am happy to do this not only because it gives an opportunity of stressing a form of treatment which, in suitable cases, may afford the only measure of curative value but, more especially, because it gives an opportunity to emphasize the necessity of a wide angled vision of the problem of arthritis. An important result of study of this form of therapy has been to lead to a better understanding of the physiology concerned and the pathology on which the symptoms of the disease depend. Emphasis on any one form of treatment of arthritis might lead to an appearance of indifference to other measures and I want at the outset to state that no single agency in treatment can be allowed, as yet, a wholly dominating role. Diet is only one of many useful tools and I am confining my remarks to it because I have been asked to do so. There will be inadequate time to take up more than a few points of pathology and treat-

ment and nothing in my remarks is to be construed as neglect, or depreciation, of the doctrine of focal infection which constitutes one of the signal advances in modern medicine. It is increasingly recognized, however, that it is necessary to do more than remove foci in the treatment of many cases of arthritis and that other factors operate in both the development of the disease and convalescence from it. In learning the important lesson of the relation of focal infection to arthritis, medical acumen has often been dulled to other weighty considerations.

A series of studies begun upon soldiers during the war has led recently to the viewpoint that the actual pathology of arthritis is dependent, in part at least, upon a disturbance in the local circulation of the region involved and probably other regions also. This conclusion had its origin particularly in the observation that focal infection and chronic arthritis are paralleled to a striking degree by a lowered sugar tolerance. This lowered tolerance is not diabetic in nature, it has been shown to depend upon circulatory

* Read by invitation before the New York County Medical Society, May 24, 1926.

such instances this is the only form of therapy which will avail. Improvement may be manifest, exceptionally, as early as the third day but sometimes the lapse of many months is necessary before convalescence is clear. Some further indication of the propriety of a diet in such cases is often to be found in the gastro intestinal X-ray which may reveal a long, dilated and tortuous colon, especially after rectal injection of the Barium.

Diet constitutes no panacea in the treatment of arthritis, however, and it will fail to influence many apparently suitable cases, just as other measures do. It is of the greatest importance to emphasize that there is no single panacea for this disease. Those who believe otherwise confess thereby their ignorance of the problem as a whole and of the many factors involved. While the proliferative type of arthritis is that which apparently best lends itself to dietetics we have been much interested recently in evidence showing clearly that the degenerative form may also sometimes respond to these measures, though not so frequently apparently. The significance of this observation is that identity of etiology in the two types is clearly implied and if the etiology be the same there is implied a lesser justification for sharp separation into types. While accepting and using the classification of Nichols and Richardson as the best, because the simplest and best founded, I am prepared to believe that the physiologic disturbance productive of chronic arthritis may be in the nature of a common denominator underlying all types and that relatively extraneous factors may condition most of the clinical variations. A hint of the nature of this underlying disturbance is given above.

One phase of this subject which needs emphasis is the fact that the careful use of dietetics may sometimes operate even in the presence of what is apparently causative focal infection. Fletcher also (*Arch Int Med*, 1922, vol 30, p 106) observed this in his two series of fifty and one hundred cases. The wise procedure is of course to remove such infection when possible, but from the academic standpoint it is of great interest to observe that there is such an influence. By the same token, it is important to observe that after foci in the teeth, tonsils or elsewhere have induced an arthritis, the disease may be perpetuated by faulty amounts and distribution of the food stuffs. Cases "hanging fire" some months after removal of infections will occasionally improve rapidly when placed on a restricted diet. On the other hand, a restricted diet alone may be

inadequate to achieve benefit but when used as a basis for other forms of therapy such as hydrotherapy, massage, etc., it may be of lasting value. A great lesson in the treatment of arthritis is that combinations of measures will often succeed where one or two alone will fail, and this more or less independently of what these measures may be.

It is pertinent to call attention here to recent studies (*Arch Int Med*, Jan, 1926, vol 37, pp 92-101) by Dr Cajori,² Miss Crouter and myself in collaboration with Dr Osgood, which show very clearly that the joint fluids are in very close communion with the blood stream. As a result of this, sugar ingested by mouth may reach the joint fluids almost immediately and in such concentration as even to exceed the concentration of glucose in the blood. It is clear that glucose is necessary for the nutrition of the avascular central portion of articular cartilage and evidence is now adduced of its ready availability. It is also clear, however, that glucose and presumably other products of normal digestion may reach the joint fluids in excessive amounts and that the way is open for access to the joint cavity from the intestinal tract of various substances of detrimental nature.

In conclusion, I want to direct attention to the important contributions made by some of the orthopedists to the understanding and treatment of arthritis. It is something of a reproach to us internists that we have not, as a group, already made large use of their viewpoint. Through my collaborator, Dr Robert B Osgood, of Boston, I have learned the importance of considering the arthritic as an architectural problem quite apart from the ordinary idea of orthopedic apparatus and correctives. The influence of postural exercise, adequate diaphragmatic descent, a wide costal angle, rest and many other measures should be considered in connection with nearly all types of treatment and constitutes another justification for the plea with which I began these remarks.

Let me conclude, therefore, with the same plea, from the standpoint of one who has long been an interested observer of this disease, that you bring an unprejudiced mind to the contemplation of the great problem of arthritis and a wide angled vision to the treatment of those suffering from it.

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constituent definitely does not take place as soon as usual and it is conceivable that under these circumstances the physiology of the muscle cells does not proceed entirely normally when there is a "load" upon it. Indeed in the presence of evidence pointing to a circulatory change it is hard to see how it could.

In view of these considerations and in view of the undoubted benefit of measures which improve the blood flow and hasten metabolism, such as exercise, massage and external heat, it seems likely that at least part of the influence of a reduced diet results from placing a lessened demand upon the machinery of exogenous metabolism, especially in the muscles.

In general, the propriety of a diet is arrived at partly through the exclusion of other causes of the disease. From what has been said it will appear that the essence of treatment of suitable cases of arthritis by means of a dietary consists in a curtailment of caloric intake below that which has been customary for the individual. Of the three food stuffs, the largest quota in our diet is usually carbohydrate and it is from this source that our calories are most quickly and chiefly obtained. A reduction of caloric intake therefore involves a reduction of carbohydrate although it is generally necessary to curtail protein and fat also. In individuals who are large eaters a reduction of this nature can be easily accomplished without detriment to the nutritional needs. People vary greatly, however, in the amounts they eat, and, in smaller eaters, such a large percentile reduction cannot be achieved. Thus, with the individual ingesting 3,000 calories, a reduction to 2,000 is easy and safe. With a person ingesting 2,300 calories a reduction to 1,800 is practicable but more difficult under average conditions of active life. In subjects eating 2,000 calories or less, further reduction must be made with full consideration of the nutritive and energy problems involved. A fairly useful practical rule in standardizing diet in suitable cases consists in allowing 30 calories per kgm of body weight according to the usually accepted approximate requirements for rest. In fat persons, however, this amount is generally grossly in excess of their needs and will do harm rather than good. No iron clad rule can therefore be given and, if opportunity permits, the best plan is to study, with the aid of a dietitian, the actual caloric intake for a period of about a week under average conditions of life. The dietary habits of the subject can then be closely approximated.

In general, a diet for ambulatory cases amounting to 1,500 to 1,800 calories will derive some 30 per cent of these calories from carbohydrate, 10 or 15 per cent from protein and the balance 40-50 per cent from fat. The nitrogen requirement must be considered from the start, on the basis, of, say, 7 grm or 1 gm

protein per kilo body weight. An abundant supply of "green vegetables" is useful, much as in diabetic therapy, for purposes of satisfying the psychic factors in eating and for stimulation of the digestive juices and peristalsis. In some cases it is necessary to begin with a larger and sharper reduction to perhaps 1,000 or 1,100 calories, shortly increasing this to the point of nutritive equilibrium while keeping the patient confined to bed. In other instances a sharp diabetic fast, or a period of several days on orange juice alone, is necessary.

The chief consideration is therefore first, to reduce the total caloric intake as outlined and second, in diets of relatively high caloric value, to redistribute the food stuffs so that the proportion of calories is larger from fats than in the usual dietary, and less from carbohydrate. This redistribution is of less importance in sharply curtailed diets than in more generous ones, since all three factors are then greatly reduced in any event. There is as yet, however, no precise laboratory guide available, as in diabetes, and reliance must be placed on clinical experience.

Great caution must be urged, however, against the danger of applying these measures to persons already undernourished, anemic or suffering from other complications, such as tuberculosis, infections, etc. There are some exceptions to this generalization and if anemia, joint destruction and pain are being aggravated through the maintenance of a surfeit of food any risks involved must be accepted. Only after the institution of a dietary reduction may cases of this sort cease to grow worse, as has been recently illustrated in the case of a physician's wife now under treatment. The problem then of feeding such cases sufficiently for regeneration of the blood elements, becomes delicate and protracted but can nevertheless generally be carried through successfully when the destructive influences are abated. Cod liver oil is useful at this stage. Lately we have been using in my clinic with considerable success a form of absorbable diet having small residue, the details of which will be published later.

It is difficult to state beforehand the type of case which is appropriate for such dietetic therapy. In general, all operative foci should have been removed, compatibly with good surgical judgment. Dr Russell Cecil, of New York, has recently directed attention again to the important rôle of the climacteric in the production of arthritis among women, regarding these cases as of the metabolic type. It is in this group that the use of diet has some of its widest applications. Well nourished or fat women presenting arthritis particularly of the proliferative type constitute apparently the most promising cases. The success of this form of therapy under these circumstances may sometimes appear magical and, there is no question that in many

such instances this is the only form of therapy which will avail. Improvement may be manifest, exceptionally, as early as the third day but sometimes the lapse of many months is necessary before convalescence is clear. Some further indication of the propriety of a diet in such cases is often to be found in the gastro intestinal X-ray which may reveal a long, dilated and tortuous colon, especially after rectal injection of the Barium.

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It is pertinent to call attention here to recent studies (*Arch Int Med*, Jan, 1926, vol 37, pp. 92-101) by Dr. Cajori,² Miss Crouter and myself in collaboration with Dr. Osgood, which show very clearly that the joint fluids are in very close communion with the blood stream. As a result of this sugar ingested by mouth may reach the joint fluids almost immediately and in such concentration as even to exceed the concentration of glucose in the blood. It is clear that glucose is necessary for the nutrition of the avascular central portion of articular cartilage and evidence is now adduced of its ready availability. It is also clear, however, that glucose and presumably other products of normal digestion may reach the joint fluids in excessive amounts and that the way is open for access to the joint cavity from the intestinal tract of various substances of detrimental nature.

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TRANS-DUODENAL IRRIGATION FOR INTESTINAL CONDITIONS IN MEDICINE, SURGERY, AND THE SPECIALITIES

By M E JUTTE, M D,

NEW YORK

YEARS ago Salisbury¹ asserted that all chronic diseases, except those arising from injuries, infections and poisons, emanated from pathological conditions in the digestive tract brought about by faulty alimentation. No evidence, known to the writer, has been adduced to disprove this claim, on the contrary, much has since become known to support the statement, so that it is not too much to say, that morbid states in some part of the alimentary tract are directly or indirectly the cause of most chronic diseases.

The main factors which bring about unhealthy conditions in the alimentary system are improper food, or improperly prepared food, or foods that are improperly combined, lesser factors are, imperfect mastication, bolting, gorging, lack of fresh air and exercise, drinking not enough water, sedentary habits, nervous strain, emotional disturbances, and advancing age.

The restoration of natural conditions in the digestive system will remove the mainspring of the ultimate disease by doing away with the intermediate pathological states which connect it with the digestive system.

To bring about sound conditions in the alimentary tract, are questions of what in a given case is proper food, of correcting the patient's faulty habits, and of local treatment—this last being the subject of this paper.

Local treatment of the stomach by gastric lavage is well known and extensively practiced, but local treatment of the intestinal tract, by trans-duodenal irrigation, is not yet generally known.

Trans-duodenal irrigation is a treatment which benefits the entire intestinal tract, it flushes all of its sections and reaches any lesion in any of its parts. Trans-duodenal irrigation is harmless, painless and does not weaken the patient, and its results are lasting. It is an aid to nature because it stimulates peristalsis and the abdominal viscera, and because it drains the liver and gallbladder. In doing all this it removes intestinal toxemia and prevents or cures chronic ailments that are the results of toxemia.

Trans-duodenal irrigation is suited to nearly all intestinal ailments and chronic diseases, because by removing the influences that are instrumental in bringing about pathological conditions, it produces conditions in the bowel that approach the normal. The combination of results obtained by the trans-duodenal irrigation makes it a unique regimen required.

treatment. For it accomplishes all three of the objects in view. These objects are to remove the offensive intestinal content, to eliminate or reduce fermentation and putrefaction, and to put the bowel in a health promoting condition generally. The other, older methods of treatment by medicines, purgation, paraffin, attempted antiseptics, colon irrigation, bacterial implantation, and vaccine injections, accomplish, each, not more than one of the objects in view and that one only imperfectly. None is as quick, safe, thorough, and generally as satisfactory as is trans-duodenal irrigation.

Trans-duodenal irrigation was originated by the writer.^{2,3,4} It is an intestinal washout which cleanses the bowel from pylorus to anus. It is given by way of the mouth,⁵ the wash water being introduced into the duodenum through a Jutte duodenal tube, this is done because the solution used is objectionable to the taste and is not tolerated by the stomach, and in order to overcome the control action of the pylorus, which would prevent the passage through it of anything in bulk. The Jutte tube is introduced with a mandrin as far as the stomach, thence it slips almost at once through the pylorus into the duodenum, having only a very small sinker. Then about a quart of a non-absorbable, hypertonic solution, plain or medicated, is run in. Running down the bowel, the solution greatly stimulates peristalsis, so that in less than an hour there are three or four copious, rather watery movements that bring with them all faecal matter, together with what there is of mucus, pus, and toxic material.

The results obtained from trans-duodenal irrigation are prompt and effective removal of all offensive material from both the small and large bowel, drainage of liver and gallbladder, stimulation of peristalsis, re-establishment of normal physiological action in other abdominal viscera, restoration of tonicity of the intestinal musculature. Secondary effects are products of toxic decomposition are kept at the normal, therefore, they do not poison the blood stream and can no longer act as causes of chronic ailments.

Various chronic ailments follow the development of toxemia and of morbid conditions in the alimentary tract. The origin of the trouble may go back to overfeeding during infancy, or it may have been a case of "indigestion" in childhood developing steadily or intermittently into worse troubles in later life, such as diarrhoea, constipation, catarrh, and still later

into stasis and toxemia, to result, it may be, in pernicious anemia, arterio-sclerosis, apoplexy

It is usually not until symptoms of toxemia appear that the patient becomes really worried, because then he begins to feel the depressing effects of the condition. Gradually the vitiated blood affects his general constitution, and the condition becomes a definitely established disease in the part of his body which happens to be the weakest or most abused or most exposed. His attention is called to the organ or part where the trouble has come to a head. He does not appreciate that the cause of the trouble is to be sought for in the intestine and that toxins there manufactured were seeds planted throughout his body for years before the demonstration of the present trouble. The order of events is well described by Lane⁶ who, writing of the consequences of stasis and toxemia, states that stasis is "delayed passage of the content of the intestinal canal of sufficient length to result in the production, in the small intestine especially, of an excess of toxic material and in the absorption into the circulation of a greater quantity of poisonous products than the organs which convert them are able to deal with. In consequence there exist in the circulation materials which produce degenerative changes in every single tissue of the body."

Cure or improvement of the diseases due to morbid conditions in the bowel may be brought about by limiting excessive fermentation and putrefaction and by removing the toxic decomposition products which would poison the bloodstream.

The quick and effective removal of these toxins by trans-duodenal irrigation, brings about a healthy condition in the intestinal tract, excessive fermentation and putrefaction is prevented, food and mucus no longer decay, digestion is completed, production of mucus and pus is gradually reduced, toxins are not formed in harmful amounts, the slow and insidious poisoning of the bloodstream ceases. The various organs and tissues of the body react to the improved condition of the blood, and because of the regulation of digestion and improved assimilation of food the whole body responds and the patient's general condition is improved, if he is not restored to health.

The treatment has been used with success in acute and chronic conditions in medicine, surgery, and the specialties. It can be used whenever it is desired to empty the bowels quickly and thoroughly, to stimulate peristalsis and physiological action of the abdominal viscera, to replace colonic irrigation, and in cases of vomiting of pregnancy and of postoperative ileus.

Cases treated by trans-duodenal irrigation are too numerous to be given in detail, but a statement of the conditions in which the writer and others have employed it will be of interest. The cases include ptomaine poisoning, enterocolitis, marked cases of ulcerative conditions, biliousness, chronic jaundice, many cases of intestinal toxemia and stasis, they include asthma, chronic bronchitis, migraine, neuralgia, pernicious anemia, secondary anemia, nephritis, rheumatism, rheumatoid arthritis, arterio-sclerosis (bloodpressure has been kept down 35 degrees below what it had been) endocrine disturbances, skin diseases, indicanuria. Then there were cases of intestinal parasites—pinworms and tapeworms that had resisted all other forms of treatment. Of surgical and obstetrical conditions the following have been treated: seven cases of marked postoperative ileus were saved (within an hour the patients were over their condition), several cases of incessant hiccup. In a number of cases of postoperative vomiting and in twelve cases of vomiting of pregnancy, a single treatment (at most two) cured the patient.

It will be of interest to know the opinions of a few writers who have had occasion to administer trans-duodenal irrigation. Bassler⁷ writes "Its employment is of distinct advantage in these distressing cases (pernicious ileus) and nothing in the postoperative handling of cases will bring more happiness." Levinson⁸ "I have practiced this procedure for two years both in hospital and private practice, and earnestly think it to be the method par excellence in the derangements of the alimentary system and the various toxemias." McDonald⁹ "This treatment has had the most extraordinary effect in all cases of toxemia of pregnancy which I have been able to treat. No patient has required more than a single treatment. In the beginning several patients had a number of treatments, because I did not believe it possible that one treatment would cure them." Aaron¹⁰ "This lavage restores normal physiology and if they are right who assert that the duodenum excretes a poison which is responsible for a great deal of the toxemia from which the human race suffers, then lavage according to this method is the remedy to remove the poison. Inasmuch as the intended result, the removal of intestinal stasis, is fully assured by this method, its general adoption is to be hoped.

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124 West 55th Street.

THE RECOGNITION OF CHRONIC NEPHRITIS IN ITS EARLY STAGES, AND CONSIDERATION OF SOME NEGLECTED PRINCIPLES IN FUNCTIONAL DIAGNOSIS *

By NELLIS B FOSTER, M D,

NEW YORK

THERE exists, probably, no doubt in the minds of any of us that chronic nephritis is a common disease. Experience in practice as well as mortality statistics point to the fact. While heart disease heads the list of causes of death we all recognize that the myocardial insufficiency of middle life and cardiac failure are not rarely sequelae of chronic nephritis. But in spite of the prevalence of the disease the majority of cases are recognized when the disorder is far advanced and at a time when complications have already begun. The chronic nephritic of the hospital ward is an example. The disease is written on his countenance, treatment is restricted to palliatives and the prognosis measured in weeks or months. The tissue lesions as well as the complete history point to the long duration of the disease, years in most cases. And the chief reason that more cases are not seen early is probably the fact that until late, subjective symptoms are slight or absent and there is nothing definite to force the man to consult his physician. Unless opportunity afforded by some minor ailment be utilized by the physician for a general examination of his patient, chronic disease is likely to escape detection at an early period. Nowadays examination for life insurance discloses the majority of cases that are detected early, and the common grounds for refusing the applicant insurance in these instances is albuminuria, or vascular hypertension, or both. A person who has been rejected for life insurance is very apt to go directly and consult his physician. And right here there is not seldom an expression of divergent opinion. The physician sees a man who appears to be in robust health, he discounts the albuminuria, though he may confirm the test, and tells the man it is of no con-

sequence, a frequent finding, possibly fatigue, possibly he calls it a physiological albuminuria. But no careful study of the case is often made with a view of determining the cause of the albuminuria which, whatever its cause, is not a sign of health. And in passing it might be remarked that few men are convinced that insurance companies reject applicants on trivial excuses, so he consults another or several other physicians. Now the physician has based his opinion on an impression and possibly on the fatalistic idea that though he may be wrong nothing could be done. The insurance company, on the other hand, is acting on cold facts and statistics based on enormous experience. Just what does this experience indicate? Briefly this: persons having albumin in the urine at all ages have a death rate considerably above the normal, in early life albuminuria is as apt to portend tuberculosis as nephritis, but after thirty the mortality from nephritis in this group rises sharply, the death rate from nephritis of persons having a faint trace of albumin after the age of forty is ten times the normal, with a trace of albumin it is about thirty times the normal. In the face of this sort of experience no case of albuminuria may be lightly dismissed.

The other sign which should arouse suspicion is any abnormality of elevation of blood pressure. With the experience of a quarter of a century we have accurate figures for the range of normal, and this range is not wide. It is quite true that studies are on record indicating that a considerable departure from the average range is occasionally noted in robust athletic young men, but this proves nothing for us until we know the full life history of these young men. Possibly in this group there will be found a special predisposition to early

* Read to the Section on Medicine at the Annual Meeting of the Medical Society of the State of New York

† Report of the Joint Committee on Mortality of the Association of Life Insurance Medical Directors, New York, 1925

vascular disorders. At any rate there are ample data available,[†] based on seven hundred thousand cases. This data signifies that the average range of blood pressure in healthy adults between the ages of 18 and 60 is from 120 to 135 mm. of mercury systolic and 75 to 85 diastolic. Furthermore an elevation of 5 to 15 mm. in the systolic or 10 mm. in the diastolic pressure is accompanied by an increase in mortality of 14 to 16 per cent. Facts of this character are worthy of deep thought. They do not, however, offer any tangible support for the easy optimistic attitude which we are apt to take in regard to apparently slight departures from a rather narrow normal range.[‡] It is not my implication that either traces of albumin in the urine or slight elevations of vascular tension are invariably significant of nephritis or even of grave disease. These are signs which should awaken suspicion. They must be explained if persistent. A subnormal temperature in the morning or a slight pyrexia in the evening are not signs of tuberculosis though we quite properly have some apprehension in these cases and give them due study. This should be our attitude in instances of albuminuria or hypertension of doubtful origin.

At the present time the etiology of chronic nephritis is obscure. We are asked to regard the disease as due to heritable factors, there is evidence in support of this hypothesis, it is pointed out that the disease is likely a result of infections or toxins and there is evidence for this hypothesis also. But there is yet no proof which compels us to accept any hypothesis. Since the progress of this disease is attended by ever increased complexity as various organs and tissues are involved (arteries, heart, etc.), it would seem that etiology can be studied only in the early stage of the malady. This demands first that we recognize it early. Then too if anything avails in diet adjustments in removing infected foci, in arranging a healthy mode of life, these are more apt, certainly, to produce beneficial results before tissue destruction has transgressed the factor of safety.

But the question of diagnosis is not settled. Albuminuria and hypertension serve to arouse suspicion but not to settle the question of diagnosis. Nor do the presence of casts in the urine, though they are important as evidence. The study of casts has fallen into neglect, though it seems now to be reviving. It is to

be remembered that casts disintegrate quite rapidly in alkaline urine, therefore specimens which have undergone ammoniacal decomposition are worthless. It is best to have the sample voided into a bottle containing thymol or boric acid. The number and character of casts too, is much better learned if the urine is concentrated and on this account the examination for casts is advantageously made on specimens of urine during the concentration test (see below).

In the present deficient state of our knowledge it is hardly possible to arrive at a correct diagnosis in the early period of chronic nephritis without recourse to some functional tests. But not every functional test will help. The phenol-S-phthalein test for example, probably the one in widest general use today, is quite useless until renal degeneration is well advanced. The usual modes of applying concentration tests, while quite useful in confirming clinical impression in advanced cases of nephritis are of no help in early cases since there is in these cases no obvious tendency to a fixation of specific gravity of the urine and the normal range of 1.010 to 1.020 is easily met.

It is quite easy to understand why it is so difficult to devise satisfactory functional tests for organs like the kidneys, liver, and heart if one but recalls the enormous factor of reserve in these organs. Only the severest strain taxes this reserve in health. One kidney may be removed with safety if the other be healthy, and there is no ill effect for the patient. In other words, man is born with twice as much kidney tissue as he needs. We have found that it is only through tests which impose a maximum strain upon renal function that we were able to detect any difference at all between persons having two healthy kidneys and persons who had suffered the loss of one kidney. This fact is significant, it seems to me, since in estimating function we have to think in terms of functioning glomeruli and tubules. Is there so much difference between the person who has lost half his glomeruli and tubules by disease and this other person who has lost half of his by surgical removal of one kidney? In view of my own studies I am dubious of our ability to detect by functional tests alone an impairment of the kidney which involves no more than half the glomeruli.*

In view of this enormous reserve, this factor of safety, it becomes evident that early and relatively slight lesions will become manifest only under a severe strain. We must devise tests with this fact in mind. Next, since the activity of kidney excretion is directly dependent on the circulation, we must be on our

[†]The more recent studies concerning the arterial tension in young persons are of great interest in their bearing upon hypertension. They suggest that the disorder may be a constitutional state, sometimes at least congenital. All these studies agree in the observation that a small percentage of young persons have abnormally high arterial tension, the incidence of the abnormality is about 5 to 10 per cent. The most recent study that of Lord Dawson of Penn was made on school children from 10 to 17 years of age. Of 650 52 (8 per cent) showed a hypertension. (*Brit. Med. Jour.* 1926 Jan. 30 p. 190). See also Diehl & Sutherland *Arch. Int. Med.* 1925 36 p. 151. Alvarez, *idem* 1923 32, p. 17. Weitz *Zent. f. Klin. Med.* 1922, 96 p. 151.

*Foster N. B. Renal functions in persons having only one kidney, *Arch. Int. Med.* 1925, 36, 884.

guard that defects attributable apparently to the kidney are not in fact defects of the myocardium

The primary essential for the excretion of salts through the kidney is the ability to excrete water. When a normal man drinks a liter and a half of water before breakfast he will void a liter or more of urine during the following four hours. If less is voided either the kidney function or the myocardium is abnormal. In a small percentage of cases of quite early nephritis this test discloses no abnormality. We call this a water excretion test.

The ability to excrete the necessary solids in a highly concentrated form is characteristic of the normal kidney. As nephritis progresses this ability becomes more and more impaired until in the later stages of the malady the specific gravity becomes "fixed," as we say, within narrow limits. But in the early stages it is possible to show a loss of power of concentration only when a sufficient strain is imposed to demand either maximum concentration or failure of excretion. This condition of functioning under most adverse conditions is secured by withholding water. The patient receives no water, soup, milk, tea, or coffee, no liquid except that contained in ordinary food, for twenty-four hours. The test is begun after breakfast and continued until breakfast of the next day. The specimens of urine are collected separately as voided, the most significant being the voidings after four o'clock, during the night and the last specimen before terminating the test. With normal persons the specific gravity of the various specimens gradually rises during the period of the test and customarily reaches a maximum of over 1.030, not rarely 1.034 or 1.036. In nephritis there is a failure to attain this degree of concentration, depending roughly on the extent of the lesion. These highly concentrated specimens are also best suited for examination for casts.

Formerly we tested these concentrated specimens for the percentage of urea in them, but this has been abandoned largely since the results were not in accord with clinical evidence nor confirmed by experience.

A considerable experience covering careful study of many cases and many tests has brought us finally to this relatively simple procedure and though leaving much to be desired, it does enable us to detect nephritis at an earlier period than formerly.

I wish now to show a few charts which summarize at a glance the results of studies of cases. These cases have been selected as examples of types of disorder and examples also of the problem often presented.

NEPHRITIS TESTS

Normal

Physical Examination

Fundus oculi hemorrhage, 0, exudate, 0, oedema, 0.
Arterio-sclerosis, 0, neuritis, 0

Heart hypertrophy, none, hypertension, syst. 124, diast. 74

Oedema face, none, back, 0, legs, 0

Laboratory Examination

Urine albumin, 0, casts, 0, leukocytes, 0, blood, 0

Blood urea N, 11 mg, uric acid, 37 mg

Phenol-S-phth recovered in 2 hours, 58%

Water-fast specific gravity night urines, 1.024, 1.028, 1.036

Water-excretion volume of urine in 4 hours, 1180 c.c. Lowest sp. gr., 1.001

The first chart summarizes the study of a normal young man. We have several hundred of these normal controls to prove that the tests are not too drastic.

NEPHRITIS TESTS

Orthostatic Albuminuria

S L—age 31

Physical Examination

Fundus oculi hemorrhage, 0, exudate, 0, oedema, 0

Arterio-sclerosis, 0, neuritis, 0

Heart hypertrophy, none, hypertension, syst. 110, diast. 68

Oedema face, 0, back, 0, legs, 0

Laboratory Examination

Urine albumin, ++, casts, 0, leukocytes, 0, blood, 0

Blood urea N, 12.6

Phenol-S-phth recovered in 2 hours, 59%

Water-fast specific gravity night urines, 1.022, 1.028, 1.032

Water-excretion volume of urine in 4 hours, 1090 c.c. Lowest sp. gr., 1.002

The next case illustrates a rather common problem. This patient was 31 years of age, of slender build, apparently healthy, but not robust. He had been refused insurance on account of albuminuria. The general examination gave no data indicating any disease. Albuminuria was present and pronounced. He was instructed to send samples of each urine voided, to void before going to bed and again *before* he got up. This was continued several days. None of the night urines contained albumin. A few more tests were sufficient to confirm the diagnosis of orthostatic albuminuria. It is not a rare disorder, it is not nephritis and should not be confused with it.

NEPHRITIS TESTS

Tuberculosis

M C—age 33

Physical Examination

Fundus oculi hemorrhage, 0, exudate, 0, oedema, 0

Arterio-sclerosis, 0, neuritis, 0

Heart hypertrophy, 0, hypertension, syst. 124, diast. 75

Oedema face, 0, back, 0, legs, 0

Laboratory Examination

Urine albumin, ++, casts, 0, leukocytes, 0, blood, 0

Blood urea N, 9.8

Phenol-S-phth recovered in 2 hours, 62

Water-fast specific gravity night urines, 1.026, 1.030, 1.032

Water-excretion volume of urine in 4 hours, 1130 c.c. Lowest sp. gr., 1.002

The next case (Case 3) came under observation three years ago. The patient was referred as a case of nephritis on account of the pronounced albuminuria. Since there was no oedema it could hardly be a case of nephrosis and the evidence gave no support to the idea of nephritis. On this account tuberculosis was suspected, and this suspicion was borne out by subsequent events. Following an acute infection, possibly influenza, definite signs developed in one lung and the patient spent a part of a year at Liberty, where tuberculosis was finally demonstrated. Then there was a year of fair health but finally a recrudescence of the old process. There was never evidence of tuberculosis of the kidneys. This case is an instance confirming statistics that albuminuria in early life often portends tuberculosis.

NEPHRITIS TESTS

Nephritis

J F—age 37

Physical Examination

Fundus oculi hemorrhage, +, exudate, +, oedema, 0
Arterio-sclerosis, +, neuritis, 0
Heart hypertrophy, +, hypertension, syst 195, diast 110

Oedema face, 0, back, 0, legs, 0

Laboratory Examination

Urine albumin, +, casts, +, leukocytes, —, blood 0
Blood urea N, 22

Phenol-S-phthl recovered in 2 hours, 35%

Water-fast specific gravity night urines 1017, 1017, 1017

Water-excretion volume of urine in 4 hours, 880
Lowest sp gr, 1005

It will assist you now if I show a chart summarizing the data in a typical case of chronic nephritis. This man is typical in every respect and one might recognize the nature of his malady by inspection alone. This examination was made about eighteen months ago, the patient is still alive though unable to pursue his vocation. The significant facts were albuminuric retinitis, vascular hypertension, albuminuria, cylinduria, nitrogen retention and a failure of concentration above 1017 (note the fixation at this point), and lowered water excretion. Nephritis is too often first recognized as this stage when the outlook is hopeless and therapy reduced to palliatives.

NEPHRITIS TESTS

Nephritis

E F—age 31

Physical Examination

Fundus oculi hemorrhage, 0, exudate, 0, oedema, 0
Arterio-sclerosis, ±, neuritis, 0
Heart hypertrophy, 0, hypertension, syst 130, diast 90

Oedema face, 0, back, 0, legs, 0

Laboratory Examination

Urine albumin +, casts, +, leukocytes, 0, blood, 0
Blood urea N, 13.3, uric acid 4.6
Phenol-S-phthl. recovered in 2 hours, 54%

Water-fast specific gravity night urines, 1024, 1027, 1026

Water-excretion volume of urine in 4 hours, 790
Lowest sp gr, 1004

The next case represents about as early a stage of nephritis as we are able to recognize with some degree of confidence. This man supposed himself in health until he was forced to pay excess premiums for life insurance. He also appeared perfectly healthy. Examination revealed two departures from normal, a diastolic blood pressure 10 mm too high, a definite though slight restriction of renal function both of concentration with a maximum specific gravity of 1027 and of water excretion. Repeated examinations and the gradual progress of the disorder have confirmed the diagnosis.

The question is often asked: But are not these tests too exacting? May they not disclose lesions which are really of slight importance? There are two facts which answer these objections, first, young healthy adults meet the requirements of the tests, second, persons with one healthy kidney meet the requirements of the tests. This latter fact might seem to imply that so far as functional tests go we are unable to detect a limitation of function until half the kidney tissue is destroyed. I am not sure but this is true.

NEPHRITIS TESTS

One Kidney

Physical Examination

Fundus oculi hemorrhage, 0, exudate, 0, oedema, 0
Arterio-sclerosis, 0, neuritis, 0
Heart hypertrophy, 0, hypertension, syst 124, diast 68

Oedema face 0, back, 0, legs, 0

Laboratory Examination

Urine albumin, 0, casts, 0, leukocytes, 0, blood, 0
Blood urea N, 18.4

Phenol-S-phthl recovered in 2 hours, 56%

Water-fast specific gravity night urines, 1036

Water-excretion volume of urine in 4 hours, 970
c.c. Lowest sp gr, 1002.

The methods of examination which have been outlined are by no means perfect. There are many cases of course, concerning which it is impossible to formulate an opinion. This is so in medicine generally, but the methods here described have two considerations in their favor. They enable us to get a better idea of the individual case than any other mode of study that I have experience with, and second, the tests are so simple that they can be carried out anywhere.

Our present knowledge of the etiology of the various types of nephritis is very defective. Only by the recognition of the disease at an early period is knowledge likely to be advanced, and the first step in this direction is more refined methods of diagnosis than have been used heretofore.

KIDNEY FUNCTION TESTS

By JOHN A. LICHTY, M.D., Clifton Springs, N. Y.

A Discussion of the Paper of Dr. Nellis B. Foster, read before the State Medical Society, March 31, 1926

That the paper which Dr. Foster has presented is a timely one, all must admit. For a quarter of a century past there has been a tremendous amount of medical literature accumulating, giving evidence of the intense desire to interpret kidney function. In this activity there is evidence of two definite lines of research relative to the function of the kidney. One is in the direction of correlating kidney disease, as it is seen clinically, with kidney pathology, as it is found at the post-mortem. We are all acquainted with the apparent satisfaction which usually follows some new and promising classification of the nephritides and the application of a new test. Then again we are, also, acquainted with the astounding difficulties which the problem presents.

The other lines of research is in the direction of developing a test whereby the very earliest manifestation of disturbance of kidney function may be recognized. It is in this line that the paper just read has probably advanced our knowledge to a considerable degree. In a satisfactory consideration of the supposed case of Bright's disease it is necessary to know the very earliest manifestation of disturbed kidney function, and it is just as necessary to know the extent of the damage which the kidney has sustained. It appears to me from the standpoint of the present endeavors in preventive medicine, the first is of the greater importance. This paper appeals to me, therefore, all the more because it applies to the early detection of disturbed kidney function. The method proposed by Dr. Foster is simple and practical. No elaborate laboratory equipment is necessary.

No unusual technical skill is required. It seems to me practical and applicable to the daily routine of the practice of medicine. In a rather extensive consultation practice I have frequently been amazed at the neglect of the more simple tests of the urine. This neglect is chiefly, I believe, because the average practitioner is so impressed with the elaborate procedure proposed for examination of urine, blood, etc., that he passes them by and at the same time looks upon the more simple tests as being unreliable. This is the excuse for neglecting to examine the urine.

It is interesting to note that Dr. Foster harks back to the more simple principles which were recognized first by Richard Bright a century ago in his epoch-making studies of disease of the kidney.

In the Clinic at Clifton Springs, Dr. Roger Hubbard, of the Biological Department, has followed closely all the tests of urine, blood, etc., proposed to determine the early qualitative and quantitative impairment of kidney function. In some respects no test has given more reliable information than the well known "fixation and concentration test."

The test proposed by Dr. Foster today suggests a fine technique of this familiar test. It seems to me to promise more accurate and dependable information. It will be interesting to note after a year or two of experience with it, what the general verdict will be as to its reliability in furnishing earlier information than has heretofore been possible as to the change of kidney function.





EDITORIALS



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For list of officers of County Medical Societies, see July 15 JOURNAL, advertising page viii

DISTRICT BRANCH MEETINGS

This year for the first time, there has been a careful survey of the resources available for the fall meetings of the Eight District Branches

Accounts of preliminary meetings, in every District Branch are printed on page 687 of this Journal. The results of this careful planning should be that the meetings of the District Branches will be more practical and fruitful than ever before

The District Branches occupied a large place in the plans of the reorganizers of the Medical Society of the State of New York. Many

Branches are as large as some State Societies and their responsibilities and opportunities are correspondingly great

The State Society and the sixty County Societies have made great progress during the past year or two, and the time has now come when the District Branches should show the same progress in the evolution of organized medicine. The preliminary conferences constitute an essential step in the forward movement of strengthening and perfecting the plans of physicians throughout the State of New York

THE MEDICAL RESERVE CORPS OF THE ARMY

This is the season when outdoor camps flourish. The Scouts, both boy and girl, take to the woods and lakes and seashores, there to live the simple life and revert to an elemental form of life where strength and physical progress are at a premium, and life is divested of its superfluities and non-essentials.

Boys go to Citizens Military Camps at Government expense in order to learn the fundamental principles of national defense, and grown men, veterans of the World War, submit themselves to camp schools, where they may learn and practice the newer methods which will be put to use in time of national emergency.

The August, 1925, issue of this Journal contained a description of the Medical Reserve Corps by Lt Colonel Charles R. Reynolds, Commandant of the Medical Field Service School at Carlisle Barracks, Pennsylvania. This school conducts two courses of two weeks each for officers of the Medical Reserve Corps of the Army of the United States. The second course this year was given from July 4 to 18 inclusive and was attended by 229 physicians, 77 dentists, 13 veterinarians, 5 chaplains, and 52 specialists such as laboratory experts, sanitary engineers and medical supply officers. Of these, 109 were from New York State. There were also 380 medical students belonging to the Reserve Officers Training Corps—the R O T C—who will be commissioned first lieutenants when they graduate from their medical, dental and veterinary schools. These two units formed a body of 760 men—as many as were in the number of medical officers, both regular and reserve, at the outbreak of the World War. As the war progressed, more and more medical men were enrolled until the medical officers numbered 31,000 and about one-sixth of the physicians in active practice were in the army.

The World War demonstrated the great need of medical officers and their essential usefulness. A wounded man in a battle line is far more demoralizing than the shells of the enemy, and should be removed from the front as quickly as possible for military as well as humanitarian reasons. Then, too, the medical men are essential in preserving the health and strength of the soldiers, and to this end the medical men are given rank and power equal to those of the officers of the infantry, artillery, and engineers. This is in great contrast to conditions at the beginning of the war when a medical officer was merely tolerated and was expected to confine his work to the treatment of the sick and disabled.

Preventive medicine is exemplified at its best in the army. There the men are examined at frequent intervals and physical defects are

corrected in their incipency. Food and diet are supervised, cleanliness is enforced, and the mode of life is regulated. The periodic health examination is carried on in its highest efficiency, and its application is made mandatory. Yet whenever a large number of men are gathered under the best of conditions, a considerable proportion will be disabled and unable to perform active duty. There will be accidents, and stomachaches, and attacks of appendicitis and other diseases, as in civil life. From two to three per cent of the men in any command will be under the doctor's care continuously. This was true in the Medical Field Service School where every man had to pass a rigid physical examination as a requisite for admission. But while some medical and surgical conditions are sure to develop, yet their number may be reduced to a minimum. It would seem that two or three per cent is the irreducible minimum for soldiers living under peace conditions, and the proportion will be doubled and tripled among soldiers in the field under war conditions.

It is a liberal medical education to attend a summer camp of soldiers and observe the medical service under field conditions. Those conditions are well known, and may be foreseen and controlled. There preventive medicine may be seen in actual operation, and its principles grasped in concrete form. An army camp is one of the best of schools for training a sanitarium and health officer.

The Medical Field Service School at Carlisle is the West Point of the Medical Department of the Army of the United States. It trains professional men for all branches of medical service. All those attending the school, both the physicians and those not yet graduated submit themselves to army discipline which means that they live under conditions of camp life. The officers as well as the R O T C students were quartered in tents where they undergo the routine of military service as distinct organizations, provisionally formed for training purposes.

The experience gained in the school is of great service during emergencies in civil life as well as in war. There are likely to be fires, storms, floods, explosions, train wrecks, strikes and also panics and epidemics, whose control requires quick thinking, and a knowledge of how to command men. Doctors are the natural leaders in all these conditions, and often they are the only leaders in the emergencies. If boy scouts are of value in teaching first aid and self-reliance, then the Medical Field Service School is of still greater public value in providing leaders to conserve and preserve health and life.

What did the men do in the Medical Field

Service camp? They went to school, and did about all the things that boys do in a school camp. They drilled for an hour every morning, attended classes for five hours, and did problems in the field on two days of each week. They played ball and pitched horse-shoes, published a camp paper, held reunions of their former regiments and colleges, and went to church on the parade ground on Sunday. They also made a tour of the Battlefield of Gettysburg. Every moment was taken up and time passed as rapidly and as happily as in a recreation camp.

A striking feature of the camp was its democracy. Colonels and second lieutenants were equal, for all were learners. The lieutenants played ball and led the social life, and the colonels showed the younger men how to run ambulances and do the administration work of the larger units.

The school was conducted as nearly as possible under conditions like those of an army in the field. A battle demonstration was staged with guns, and bombs, and airplanes, and smoke-screens, the R O T C boys picked up the wounded, gave them first aid, carried them back to first aid stations from which they were carried in ambulances to the hospital five miles to the rear.

Another exercise was that of map reading and of locating aid stations and hospitals, and laying out ambulance routes as in actual battle.

The Medical Field Service School is an essential part of the system of national defense and preparedness for emergencies. Emphasis is placed on the word "Field."

Professional men in private life are familiar with all phases of the practice of medicine among private patients and in institutions and business houses, but the U S Army is almost the only institution that affords training for great emergencies, when entirely novel situations must be met. An emergency will not give rise to a panic when a large body of men are trained to handle the situation.

Physicians and dentists will form the largest class of professional civilians who will be called into the army in the time of great national emergency. At least one-fifth of their number will be needed in active service in the army and navy. Their number will probably exceed that of all other professional men combined. They alone of all professional men will be needed in very great numbers. There is a grave duty imposed on physicians, dentists and veterinarians to serve in the army in a professional capacity in the next war. The Medical Field Service School has already trained about 2,000 men for army service and the number of applicants are far greater than can be taken under existing appropriations. It is to the great credit of the medical dental and veterinary professions that practitioners are willing and anxious to do their part in national preparedness.

HARMONY

"Yielding much for the sake of harmony," is a frequent confession for which credit is often claimed. Just what is meant by that expression?

Every doctor who belongs to a medical society unconsciously makes a list of his principles and beliefs. When these lists are compared, many items are found to be identical, and others are divergent or contradictory. Those doctors who hold the same belief in any line are likely to form a medical group or society for the purpose of promoting that particular tenet, and they agree to disagree in regard to other matters.

The members of the Medical Societies of the States and Counties are remarkably unanimous regarding a large number of items of belief, and they are equally divergent in re-

gard to other subjects. All doctors, for example, agree that physicians should make their influence felt in public health, and should participate in the activities promoted by lay organizations, but when it comes to the details of the participation and cooperation, should the doctors work for, or with, or over the lay organizations? It is in the decision regarding these secondary questions that doctors pose as either martyrs or dictators. If martyrs, they are prone to quote their martyrdom as sufficient ground to assume the role of dictators. "I have yielded enough of my principles, and now I will resign if I can't have my own way." Does this have a familiar sound?

Martyrs and dictators in medical societies have much in common, and are often interchangeable characters.

A GUIDE FOR PHYSICIANS

New York City has a wealth of clinical material which is at the service of physicians who seek information. It also has experts who are willing and anxious to impart their knowledge to visiting physicians. How to bring the teachers and pupils together has been seriously considered by the New York Academy of Medicine.

The Academy has issued a booklet of 80 pages entitled, "Opportunities for Clinical Study in Hospitals in New York City." It contains a list of the hospitals of Greater New York and classified information regarding the kind of instruction which a physician can obtain in each. It gives a detailed account of the clinics and classes which are held in each hospital, and the names of the instructors with the days and hours of their lectures.

The booklet also gives maps showing the

location of each hospital. It contains a full index of the courses and one of the clinical teachers.

The booklet will be sent free on application to the New York Academy of Medicine, 17 West 43rd Street, New York City. In addition physicians who call at the Academy will find lists of operations and clinics posted, and will be given a glad hand and further information that he may desire.

The Academy of Medicine is entering upon a greatly enlarged field of usefulness. It has the trinity of equipment, personnel, and endowment, and its facilities are at the disposal of visiting doctors. It is the desire of the managers to make the Academy a medical center at which physicians from any locality may obtain the information regarding medical practice.

LOOKING BACKWARD

This Journal Twenty-Five Years Ago

The New York State Journal of Medicine for August, 1901, contained an article on "The Technique of Bloodless Works," by Robert H. M. Dawbarn, M.D., of New York City. The doctor proposed the elimination of blood from a limb previous to operating by means of bandages wrapped tightly around the part, and also the opposite procedure, that of holding the blood in a limb in order to keep it from an affected part—brain, or lung, or stomach, or other internal organ that was bleeding.

Dr. Dawbarn's method was extensively tried in the hospitals of New York City during the decade of the nineties and its usefulness and limitations were determined. However, the method never became generally used and is scarcely mentioned today. Yet there is no doubt of its usefulness in certain conditions.

A novel suggestion is made. When an elbow is injured, encircle the limb with a bandage applied tightly, beginning at the fingers, and running to the shoulders, and then remove the bandage, beginning at the other end but keeping a few turns at the upper end of the limb. This will eliminate both the blood and the extravasated serum from the joint and will enable the doctor to feel all the bony parts as distinctly as on the well limb. The x-ray has removed the necessity of this procedure.

Dr. Dawbarn also suggests bleeding into the limbs in cases of apoplexy. The method is to use three limbs, and to encircle them with bandages which will cut off the return venous circulation while permitting the entrance of blood through the arteries. Dr. Dawbarn claims that several quarts of blood may be retained in the limbs by this method.

The fourth limb is to be utilized after a half hour and one of the three first used is to be released. In this way the limbs are to be used in rotation. Dr. Dawbarn says of the method:

"This same idea of constricting the extremities enables one to do comparatively bloodless surgical work upon the trunk, face, neck, or brain, and is worthy of more frequent usage than at present. It also is unquestionably the best, indeed the only reliable method of treating medical hemorrhages—as distinct from surgical ones. By a medical hemorrhage I mean one where direct mechanical control is out of the question—hemoptysis, hematemesis, and apoplexy, for example. It is a curious fact that this best of all methods—and a very old one—has been completely lost sight of by most practitioners."



MEDICAL PROGRESS



Diagnosis and Treatment of Infections of the Biliary Tract.—A T Basin (*Canadian Medical Association Journal*, June, 1926, xvi, 6) asserts that usually acute cholecystitis is an *accident* supervening upon a chronic cholecystitis, and it is to the antecedent condition that we must give close ear. Fat, flatulent women above forty, and particularly those of unusual fecundity, are the special victims of gall-bladder disease. Important in diagnosis is a history of chronic dyspepsia not relieved by lying down. Physical signs are often few. In the writer's experience Boas' sign is seldom present, whereas a tender epigastrium and Robson's point are of great diagnostic aid. Pain in the scapular region, which is readily explained by the nerve distribution, must not be confused with phrenic nerve reflexes, such as occur in diaphragmatic pleurisy, subdiaphragmatic abscess, or ruptured spleen. There is no direct evidence that the phrenic nerve supplies the gall-bladder or biliary passages. Gastric analysis occupies a position of inferiority in diagnosis. Visualization of the gall-bladder by means of sodium tetrabromophenolphthalein, or sodium tetraiodophenolphthalein gives results, on the whole, reliable and satisfactory, and the roentgenological examination may serve to eliminate other possible causes of the symptomatology. The finding of bile in the urine is of definite help, but a negative finding is of no value whatsoever. The only value of the Van den Bergh test is the gaining of time, or the detection of such slight blood contamination as would escape observation in uranalysis or tissue staining. The Meltzer-Lyon test may be abandoned for diagnosis and especially for treatment.

The determination of pancreatic dysfunction (hyperglycemia or diminished sugar tolerance) is highly important. In the Montreal General Hospital hyperglycemia was found in 75 per cent of all cases of lesions of the biliary passages. Axioms which govern Bazin's procedure are (1) Remove all other foci of infection. (2) With biliary infection apparently limited to the gall-bladder, cholecystectomy without drainage is indicated. (3) With evidence of more diffuse infection, cholecystectomy with drainage of the common duct is indicated. (4) If infection of the gallbladder is presumably the cause of symptoms, and if, after opening the abdomen, other viscera are found to be normal, and to the casual observer the gall-bladder may appear normal, cholecystectomy is still indicated. The signs of early and slight infection of this organ

are subperitoneal deposit of fat, especially along the lines of the vessels in the wall, and palpable lymph glands in the gastrohepatic omentum, or on the neck of the gall-bladder. Further study of hepatic and pancreatic function may lead to the conclusion that the early eradication of chronic biliary infection will lessen the incidence of diabetes.

Gallstones.—After discussing the etiology and symptoms of gallstones, cystic-duct stones, and stones in the common bile duct, R. P. Rowlands (*Practitioner*, June, 1926, cxvi, 6), emphasized the importance of differentiating cholecystitis from appendicitis (especially when the appendix is placed high up), renal colic, and gastric and duodenal ulcer. Biliary dyspepsia has no time relation to food, there is achlorhydria in at least one-half the cases, hypochlorhydria is rare, while in duodenal ulcer, over-acidity and hunger pains are almost constant. The *x-ray* examinations are valuable in excluding evidence of gastric and duodenal ulcer, and occasionally showing the shadow of gallstones. Examination of the duodenal contents, by means of a Ryle tube, often helps, pus cells were found in 58 per cent of the cases examined at New Lodge clinic, and cholesterol crystals in 50 per cent. When stones obstruct the bile duct this evidence is not available. Excess of cholesterol in the blood is also of some value, for more than 0.15 per cent affords additional evidence in support of gallstones. The gall-bladder is usually found to be enlarged when the attacks are due to gallstones, except when blockage of both cystic and common bile ducts exists. Those predisposed to gallstones should avoid foods known to be rich in cholesterol. In the medical treatment, dieting along these lines and the use of antiseptics, such as sodium salicylate, 10 to 20 grains three times a day for months at a time, are indicated. Methenamine, given according to the plan outlined by Hurst, is the best antiseptic. It must be stopped at once, however, if any cystitis or hematuria is noticed. Olive oil and belladonna may relieve the gastric symptoms by diminishing gastric acidity and allaying pain. Operations for gallstones should not be undertaken lightly. Whenever possible, if the disease is limited to the gall-bladder, especially in young persons, cholecystectomy is preferable to cholecystotomy, the mortality being less and the results infinitely better. The common duct should not be operated upon during an acute attack of jaundice and especially of fever, as in this case

the risk of death from hemorrhage, liver shock, suppuration, or cholemia is very real. Preliminary careful preparation with injection of calcium chloride, with plenty of water and glucose by rectum, adds greatly to the safety of the patient.

Treatment of Cholecystitis and the Prevention of Gall Stones—In the diagnosis of gall-bladder and common bile-duct disease, Arthur F. Hurst (*Lancet*, May 22, 1926, ccx, 5360) states that in his experience [contrary to that of Basin above noted] the Meltzer-Lyon test yields very valuable information, as do other biochemical tests and cholecystography. The treatment consists in dealing with the infection by biliary antiseptics, autogenous vaccines, the removal of septic foci, and the provision of adequate biliary drainage. As a biliary antiseptic he recommends large doses of methenamine which are well tolerated if the urine is kept alkaline. The mixtures used are a dram each of sodium bicarbonate and potassium citrate in an ounce of water, and 100 grains of urotropine in an ounce of water. The first day an ounce of the alkaline mixture is taken with half an ounce of the urotropine mixture, the dose of the latter is increased by a dram each day until a full ounce is taken. As a rule, the patient can take 100 grains of methenamine three times a day without difficulty. If achlorhydria is present from 1 to 2 drams of dilute hydrochloric acid should be taken in 5 to 10 ounces of water to which the juice and pulp of an orange and some sugar are added. The first dose is taken a half hour before breakfast, and as a beverage at lunch and dinner. If the bile obtained through the duodenal tube contains pathogenic microorganisms, a vaccine should be prepared and a course of inoculation carried out for several months. J. F. Venables has proved conclusively that concentrated magnesium sulphate solution given by mouth acts as efficiently as when introduced into the duodenum. The patient should take, each morning upon awakening, as large a dose as he can without producing diarrhea. Biliary drainage is promoted by active outdoor exercise and by abdominal exercises. As a prophylactic measure, an effort should be made to keep down hypercholesteremia in normal pregnancy by prohibiting eggs and cream which contain a great deal of cholesterol. Patients with active cholecystitis should take a diet poor in cholesterol, avoiding in addition to the yolk of eggs and cream, brain, liver, sweet-breads, kidney, and roe, all animal fats should be taken in moderation. If the patient is extremely thin olive oil may be given before meals, especially if hyperchlorhydria is present, as it inhibits the flow of gastric juice and causes the gall-bladder to

contract, thus promoting drainage. Hurst questions whether within the next ten years cholecystitis will not be treated so efficiently that operations on the gall-bladder will become rare events.

Peroral and Intravenous Cholecystography—K. Presser reports the results of Holzknecht's experience with this new American resource in the following summary of conclusions: (1) It may be shown that the gall-bladder is normal and we can thereby exclude this organ in differential diagnosis. (2) Abnormal situation of the gall-bladder may be shown. (3) Obstruction of the cystic duct and contracted gall-bladder may be shown. (4) One may demonstrate the presence of pathological situations and alterations in form of the gall-bladder. (5) When a contrast material is injected intravenously pathological alterations may be shown in the wall of the gall-bladder. (6) The method increases the visibility of concretions which contain no lime and do not cast shadows on the roentgenogram, because these formations appear as clear areas.—*Wiener klinische Wochenschrift*, June 17, 1926.

Transition of Aortalgia Into Angina Pectoris—Norbert Ortner relates a case which he was able to follow up for four years which throws light on the subject of vague substernal pain passing into the crises of angina pectoris. The patient was a man of 50, a heavy smoker, who first complained of the substernal pain when it was mild. It gradually became more severe and was aggravated by physical exertion or mental excitement. After persisting several years the pain began to radiate down the left arm, so that the patient became unable to work, for every effort started the pain. At this juncture the symptom took on a paroxysmal character with the pallor, cold sweats, and vertigo of angina pectoris, the patient being forced to lie quiet, not even daring to take a deep breath. Ortner, when he first examined the patient in the initial period, found an aortic systolic murmur with accentuated second sound. Several years later these symptoms were aggravated and there was in addition a mitral murmur with cardiac dilatation. He estimates the case as follows: At first there was a localized atheroma of the aorta at the level of the coronary orifices, where a simple tension pain developed. The degenerative process gradually extended into the coronary arteries and when these became obstructed the crises of angina developed. The mitral lesion and dilatation arose when the atheromatous process reached the valves, but evidently had nothing to do with the clinical picture.—*Medizinische Klinik*, May 21, 1926.

Prognosis of Angina Pectoris—F Kisch has studied the subject of prognosis in connection with 132 patients and finds that it must differ much with the type, and accordingly he isolates three types as follows. First a group of relatively recent cases in which the paroxysms are determined by the patient's movements and by taking food. The crises are short and the malaise which accompanies them passes off with the symptoms. Radiating pain is limited to the left side. In such cases the diaphragm may be high placed, so that the heart and aorta are somewhat crowded. To control these attacks we require only nitroglycerin and measures directed against meteorism. In these patients the prognosis for life is good, nothing being said of any other prognosis. The second type is much like the first, but the state of the stomach is not a factor. Even though the crises may be frequent and severe they are not protracted, and the prognosis for life is good again. In the third group the paroxysms are of long duration and the malaise continues after they have passed. Radiation is not restricted to the left side and the radiating pains may be very intense. Attacks are not only precipitated by motion and taking food but occur even when the patient is seated or lying and irrespective of the filling of the stomach. In this type of case the blood pressure may be falling. The prognosis for life is not good.—*Medizinische Klinik*, May 21, 1926

Auricular Flutter—In order to illustrate the method of treatment and to show the importance of early diagnosis of auricular flutter, Louis Faugeres Bishop (*Medical Journal and Record*, June 16, 1926, cxxiii, 12) describes the case of a woman, 51 years of age, with signs of cardiac decompensation with complete exhaustion. There were cyanosis, ascites, very rapid heart rate (216 to the minute and regular) and extreme nausea. Digitalis had been given casually. The situation was desperate and it was probable that auricular flutter was present. Two ampoules of digifolin were at once injected intramuscularly, followed every hour by a single ampoule, until eight ampoules had been injected. At about the time the eighth ampoule was given the pulse rate fell to 40 and was completely regular. The dose was then reduced to three ampoules in twenty-four hours, with further reduction when the pulse rate, which had again risen, fell to 90. With the control of the heart the nausea and vomiting disappeared. There is no reason why a patient of this type, with the heart, arteries, and kidneys apparently sound, should not enjoy fairly good health with a controlled fibrillation, or possibly with complete restoration of rhythm. Digitalis is a specific remedy

for auricular flutter. It acts by first changing the flutter to auricular fibrillation and then normal rhythm may return. On account of its rather grave significance it is important to recognize auricular flutter in order that proper treatment may be instituted without delay. Positive diagnosis can be made only by the electrocardiogram, but in a person suffering from cardiac failure, with extremely rapid through regular ventricular rhythm, the possibility of auricular flutter should always be considered. The intravenous or intramuscular administration of digitalis is not contraindicated in the presence of nausea and vomiting in cases of this kind. It is well to remember that in auricular flutter the heart is not condemned as a whole, but the auricle is particularly affected. The establishment of the distinction between symptomatic tachycardia and tachycardia of specific origin is important. Upon this differentiation must often depend the recognition of auricular flutter after operation, and it may dispel the fear of infection as the cause of rapid heart and thus avert unwise surgical interference.

Herpes Zoster and Internal Disease—J Severin calls attention to the large number of cases of this association which are upon record. The report by Bittorf in 1911 of a case of zoster which appeared in connection with an attack of renal colic was followed by a swarm of similar reports in which every possible disease of the kidney, kidney pelvis, and ureter was present. Another group of zoster cases was associated with painful affections of the heart and aorta and a third group with the affections of the alimentary system. It was remarked incidentally that in practically every case the location of the eruption accorded with the particular Head zone which was associated with the diseased organ, while in the great majority of cases the organ affection was naturally a painful one. The author himself has seen no less than four cases of this association which he relates in full. The first two developed in patients with intermittent hydro-nephrosis in which renal colic was the eliciting cause. The third case occurred in association with an attack of hepatic colic in a patient with cholelithiasis, while the fourth patient suffered from angina pectoris itself due to sclerosis of the aorta. It is obvious that when a practitioner is confronted with a case of zoster he should locate the organ involved in the Head's zone of the eruption and examine the patient with especial reference to internal disease with painful manifestations, the source of which is easily confused in ordinary diagnosis. Scars of past zoster might have a similar diagnostic value.—*Deutsche medizinische Wochenschrift*, May 21, 1926

Further Evidence Pointing to the Identity of the Viruses of Herpes Zoster and Varicella.—Erich Hoffman states that von Bokay as long ago as 1892 began to point out the possibility of some association of necessity between these two affections. Thus he had repeatedly seen children come down with chicken pox after association with a patient with zoster. In 1923 the same pediatricist announced that he then had notes of more than 200 cases of this type, comprising a few in which a reversible action was present, the zoster appearing after association with a patient with varicella. He also pointed out that children who have gone through zoster are immunized against varicella. Recent serological tests also point to identity of the two viruses, the distinction between the two diseases being that while varicella is a blood stream infection zoster represents a lymph-stream propagation originating in the olfactory region and eventually reaching the posterior spinal nerve roots and their ganglia. It is certain that zoster virus has a peculiar neurotropism which is not much in evidence in varicella. We next arrive at the problem of double infection which in theory should be common, but the author could find only 22 cases in the older literature, the rule being that zoster appears first and is quickly followed by an outbreak of varicella. However, the symbiosis must be much more common than these small figures imply, for the author himself has seen two cases, and it is easy to see how others could be masked under such clinical diagnoses as generalized zoster and atypical varicella.—*Deutsche medizinische Wochenschrift*, May 21, 1926

Progressive Roentgen Ulcer Healed by Diphtheria Antitoxin—Professor F. Franke relates an interesting personal experience in the *Medizinische Klinik* of May 21, 1926. He had been a roentgenologist for 24 years without having developed any untoward professional symptoms, but two years ago he began to notice nutritive alterations in the finger ends, including a tendency to form ulcerations of a torpid character, very slow to heal. Recently he met with an accident when the left medius was caught in a slamming door, nearly losing the last phalanx. As the writer was a pianist he made an extra effort to save this member, although gangrene seemed almost inevitable, and succeeded in restoring circulation in the distal portion of the finger, but the vitality had been so reduced by the roentgen rays that ulceration set in and continued to spread, refusing to respond to any plan of treatment. It produced exuberant granulations and was very painful, and the loss of the member was again threatened. Although the author feared that a malignant roentgen ulcer might already have developed he resolved to persist with the con-

servative treatment. Recalling an army experience in which similar ulcers had been found to harbor diphtheria bacilli and which responded to diphtheria antitoxin, he determined to test the antitoxin although bacteriological examinations had shown nothing more virulent than the white staphylococcus, and applied dressings of 400 units each. To his intense surprise and pleasure the ulcer began to heal and slowly closed up. In explanation Franke had only one guess—that the horse serum in the antitoxin exerted the therapeutic effect. A slightly similar case is reported in which an ulcer of the same type was cured by a dressing of the patient's own blood.

A Study in the Disinfection of the Hands—Howard Lillienthal and Jerome M. Ziegler (*Annals of Surgery*, June, 1926, LXXXIII, 6) report tests on the mechanical cleansing of the hands by covering them with an easily visible substance and scrubbing until all traces of it has disappeared. A mixture of lampblack and oil and black machine grease from an automobile were selected as materials suitable for this purpose. It was found that microorganisms would not grow in lampblack and cottonseed oil, although the material is not truly bactericidal. For removing these materials certain commercial cleansing pastes were found to be superior to green soap. It was, however, impossible to remove all the foreign matter from beneath the finger-nails, hence for them a surer method must be employed. A procedure that proved so convincing that for about ten years many of those associated with Dr. Lillienthal have been employing it consists in the following steps: (1) The finger tips are immersed in tincture of iodine, and are immediately removed, the tincture being permitted to dry for five minutes. (2) While this is going on the remainder of the hands, including the wrists, should be painted with lampblack mixture up to the limits of the iodine. (3) The hands are washed by rubbing with the cleanser (a soap containing 85 per cent water, a small amount of free alkali, and various volatile oils) without water for about one-half minute. (4) The hands are then rinsed under hot running water. (5) They are then scrubbed with the cleanser and brushed until all traces of the lampblack have disappeared, scrubbing the arms as usual at the same time. (6) The alcohol scrub is employed in the usual fashion. It will then be found that most of the iodine discoloration has disappeared. The hands may now be dried with a sterile towel and the gloves put on. The use of the lampblack is not necessary as a routine, but it is most important as a training for those who wish to perfect themselves in operating-room technique.

THE DAILY PRESS

THE ORIGIN OF MAN

The subjects of evolution and the origin of man are frequently mentioned in the daily press. The New York Herald-Tribune of July 22nd contains a report of a lecture by Dr. H. Gideon Wells in Columbia University in which he is quoted as saying that the immunological reactions of the blood of the chimpanzee and orang-utan compared with that of man show that the tailless apes are related to man more closely than to the tailed monkeys.

Those who are interested in the evidences of the characteristics of early man will find interesting reading in the May-June number of "Natural History," the publication of the American Museum of Natural History, New York City, on page 271. Drs. Gregory and McGregor, of the staff of Columbia University say:

"After many years of intensive investigation of the subject from various angles, the present writers can state as a fact that by every criterion used to estimate zoological relationships, including the data of anatomy, embryology, physiology and pathology, the chimpanzee and the gorilla stand closer to man than to any tailed monkey."

The authors state, "The earliest known races of mankind were already true Hominidae and therefore, in spite of certain ape-like features, they hardly deserved the name of 'ape men'." It is generally recognized that each of the

modern anthropoid apes is specialized in certain peculiarities that definitely rule it out of the line of human ancestry. The known facts of palaeontology also prove that these two families must have begun to diverge from each other at some period before the Lower Pleistocene, and the human family probably did have a line of ancestry of its own which stretched backward far into Tertiary times. It would also be convenient to call these Tertiary men 'Dawn Men' if it be understood that *Eoanthropus* (Piltdown), the one that was originally so named, was one of the latest of the series."

There is much nonsense printed and spoken about man's descent from the monkey. The issue of *Natural History* that is quoted is entirely devoted to past races of man. It contains a summary of the evidence on which the theory of the evolution of the human race is founded. There are descriptions of the primitive Neanderthal man, of casts of the brain cases of fossil skulls, and of the characteristics of ancient teeth, and accounts of how the very old human remains were found, including pictures of the sites on which they were excavated.

The popular fear that study of evolution leads to irreligion is refuted by the fact that the first article in the magazine is by a Catholic priest, who is an authority on the ancient races that drew pictures in the caves of France and Spain some 25,000 years ago.

PERSONAL TRANSPORTATION IN NEW YORK CITY

The problem of traveling to and from work has so great effect on health that the Commissioner of Health is working on a plan called "The Stagger System." This is that the stores, offices, and theatres shall open at different hours so that the peak of travel which is now confined to an hour in the morning and another in the late afternoon shall be spread over two hours during each period. The New York Times of May 27 says that the Commissioner has already called conferences of business men who employ large numbers of workers, and has begun a survey of the number of workmen in New York City and their methods of going to and from work. The success of the Stagger plan will depend on the degree of cooperation that can be secured among both employers and employees.

The people of New York City are patient,

long suffering, and considerate of others. They are compelled to have these qualities, else life would be unbearable. In no other way could the great crowds which fill the station platforms and the cars travel in safety. The people of New York City will adapt themselves to congestion and crowding as long as they can, but when the limit of the number of cars that can run is reached, as it now is in rush hours, no amount of patience and cooperation can speed up transportation. The people will welcome The Stagger System of transportation when conditions compel them to.

Another solution of the transportation problem is that of zoning the city and assigning definite sections to business, others to trade, and others for residence. This plan is discussed editorially in the New York Times of May 27. It will require years for its adop-

tion, and is dependent largely upon the development of bridges, underwater tunnels, and the means of distributing freight in the city.

Another solution of transportation is that of establishing manufacturing centers in rural districts. Henry Ford is a practical advocate of this plan, and the Village of Hershey has sprung up around the plant of the chocolate manufacturer in Pennsylvania, and Endicott, N. Y., around a shoe manufacturing establishment near Binghamton.

The unknown quantity in making an intelligent plan for transportation is the individualistic manufacturer who thinks only of the immediate needs of his own business. New York City is a great aggregation of individuals, but the time is rapidly approaching when there must be either a high degree of cooperation, or the city must cease to grow and its people must spread to smaller towns where they may ride to work in their own automobiles.

HEALTH IN ART SUBJECTS

The New York Sun, February 20th, contains an editorial entitled "Health on Canvas" which is a discussion of health as shown by the human figures painted by the famous artists. The Editor says:

"It was the painter Sandro Botticelli who imposed on the world the test of slinness as a mark of beauty, in later years Rubens, whom Henry James called the painter of rosy brawn, may have tried to lead the world to look with a kinder eye on his robust type of pulchritude. Yet today it is the Botticelli type which prevails where Western ideals are in the ascendant. Slinness is essential to the beauty of these women. The privations they endure that the too solid flesh may disappear are evidences of the esteem in which they hold the leanness they so valiantly struggle to possess. One well known theatre manager in New York who engages hundreds of women every year for his enterprises says that 130 pounds is the top-most limit of the avoirdupois of any woman who expects to be on his beauty roll."

"It was years before the world discovered how it came about that Botticelli's ideal was slinness. The original of "The Birth of Venus" and "Spring" escaped emaciation but she was undeniably slender. It was not until the knowledge that she suffered from tuberculosis became widespread that Botticelli's ideal of beauty was seen to be one which could never have existed in a healthy subject. In spite of this model's lack of health the impression that slinness is an essential of physical beauty has prevailed down to this time and artists have never hesitated to declare themselves as on the side of Botticelli rather than Rubens. The cult of emaciation was never stronger than it is to-day."

The editorial discusses the adenoid faces of royal subjects painted by Sargent, and compares them with the absence of the adenoids in the paintings of Holbein.

Gouty too was shown in some famous portraits. The editorial says:

"Although Sargent may have interpreted

relentlessly some of his subjects—among them even the London art dealer Wertheimer—he never went so far as to declare that he was realist enough to reveal by their looks as he depicted them the dietary of his subjects. Such fame was thrust on him by the King's dentist, who evidently remained indifferent to the fact that the Sargent subjects were of the kind that got the most expensive food procurable, regardless of whether it was sufficiently supplied with vitamin B."

"It is not surprising that the symptoms of goiter should be noticeable in a portrait if any painter happened to possess such an unhealthful ambition as to send his subject down to posterity with the evidence of such physical imperfection. In a collection of ten Madonnas by famous masters a Dutch physician has called attention to the artist's unmistakable depiction of thyroidal enlargement."

"This physical peculiarity appears in so many portraits that the physician is able to demonstrate, at least to his own satisfaction, that the frequency of this disturbance in that day shows the prevalence of goiter at present is not due to any conditions that have come into existence of late. The burden of suspicion under which too thoroughly purified salt had labored seems to be materially lightened. So the investigator has at least some medical conclusions to excuse his inquiries into the mixed field of art and health, even if his work does not exonerate the painters for immortalizing goiter in their works of genius. There ought to be a limit even to medieval realism."

One may wonder why physical defects were included in portraits, even when the pictures were intended to be life-like. It has always been considered proper to conceal physical defects, and yet portraits of kings and queens often show them. The adenoid face of Queen Victoria could not be kept from a painting, but a goiter need not be revealed. The deformed waists of a few generations ago and the compressed feet of the present day support the theory that the defects shown in paintings were included intentionally as a part of a fad or fashion of the day.



BOOK REVIEWS



EXPERIMENTAL INVESTIGATIONS INTO THE EMOTIONAL LIFE OF THE CHILD COMPARED WITH THAT OF THE ADULT By HELGA E. G. Translated by GEORGE H. MORRISON, M.B. (Edin.) Octavo of 243 pages, with 9 plates. London, Humphrey Milford, New York Oxford University Press, 1925 Cloth, \$6.50 (Oxford Medical Publications)

This work is a highly scientific and painstaking study and observations on child emotions

Using instruments of precision the author sets out to investigate the effects of mental concentration, excitement, depression, etc., on the physiologic behavior of the subject under observation.

Plethysmographic tracings of the pulse wave, volume as well as respiration rate are made use of as indicators

The book should prove of great value to the one interested in child psychology

The author comes to the conclusion that the physiologic behavior of the child depends largely on its psychologic background. An important factor in the study of child training

HARRY AFFEL

THE BOOK OF PRESCRIPTION, WITH NOTES ON THE PHARMACOLOGY AND THERAPEUTICS OF THE MORE IMPORTANT DRUGS AND AN INDEX OF DISEASE AND REMEDIES By E. W. LUCAS, C.B.E., Fellow of the Institute of Chemistry, Fellow of the Chemical Society, and H. B. STEVENS, O.E.B., Fellow of the Institute of Chemistry, Eleventh edition. P. Blakiston's Son & Company, Philadelphia, 1926

This little volume of 350 pages is the eleventh edition of a collection of English prescriptions and serves to inform us of the Britisher's method of applying his therapy. The first edition came out in 1856 and the fact that it has gone through ten revisions indicates it is an English standard

With our present knowledge of pharmacology, it is difficult to understand the demand for any book of prescriptions, but that there is a demand is evidenced by the continued issuance of a book of this sort. Certainly this little volume is one of the best of its kind. Many formulae for "Colloidal" metal preparations are given, and in this particular it is ahead of our own publications of like title. For those needing suggestions in the detail of prescription formulation this should prove a useful book

M. F. DEL.

A HISTORY OF THE MASSACHUSETTS MEDICAL SOCIETY WITH BRIEF BIOGRAPHIES OF THE FOUNDERS AND CHIEF OFFICERS By WALTER L. BURRAGE, A.M. M.D. Secretary of the Society. Illustrated with views of some of the meeting places, reproductions of old documents and portraits of important officers. Privately Printed, 1923

This is a history of "the oldest State Medical Society in the U. S., with a continuous existence" of 141 years having been founded in 1781. While primarily intended for the profession of Massachusetts it contains matter of wider value, even to notes on the history of the Medical Society of New Jersey. It thus becomes one of the basic sources of medical history in this country. Yet it carries much that has perennial interest and present-day importance—witness sections on malpractice defence police duty and discipline (euphemism for ethics) the Library district medical societies indemnity insurance etc.

The activities are taken up by 10 to 50 year periods. Less attention is devoted to the scientific record (chiefly

by titles), than to professional life in its public and official relations. It is evident that medical politics plays its part even in the M. M. S. Many biographic sketches are given, including excellent portraits of some twenty of the subjects.

The book is issued in fine form, and constitutes a type-record of that organization's past and present, such as should be published by every self-respecting medical society that has reached an age of maturity

W. B.

PRESCRIPTION NOTES By ARTHUR L. TATUM. 16mo of 22 pages, with blank pages for selected prescriptions. Chicago, University of Chicago Press, 1925 Cloth, \$1.25

The first fifteen pages of this little book of twenty-two pages of text attempt to give the essentials in grammatical construction of prescription writing. Though very brief, there are many facts brought forth that are helpful, but on the whole, it is too incomplete to be of any great value to one desiring to become familiar with the art. In addition, there are seven more pages devoted to the more or less important preparations of the United States Pharmacopoeia, Tenth Revision. The balance of the book is made up of blank pages for selected prescriptions

FREDERICK SCHROEDER

EARS AND THE MAM-STUDIES IN SOCIAL WORK FOR THE DEAFENED By ANNETTA W. PECK, ESTELLE E. SAMUELSON and ANN LERMAN with an introduction by WENDELL C. PHILLIPS, M.D., President-Elect of the American Medical Association. F. A. Davis Company, Philadelphia, 1926. Price, \$2.00 net.

This book is a plea for better social service among the Hard of Hearing, especially those beyond the help of Therapeutics

The authors show a keen knowledge of the various types of deafness and strongly urge more careful co-operation between the medical man, especially the Otolologist, and those socially interested in the deafened

Various methods of social adjustments are recommended. Of these lip reading is the most important in the opinion of the authors

Though strictly a social work every otologist as well as general practitioners should read it.

S. H. DEC.

THE COMMUNICABLE DISEASES. How They Spread and How They May Be Controlled. By ALLAN J. McLAUGHLIN, M.D. Octavo of 269 pages. New York and London, Harper and Brothers, 1923. Cloth, \$2.50 (Harper's Public Health Series.)

This is one of a series of books on public health topics edited by Dr. McLaughlin. It is written especially for the more intelligent portion of the laity who are interested in and capable of understanding a non-technical discussion of these diseases

Part 1 is introductory, giving a brief account of bacteriology, epidemiology carriers and methods of infection. Part 2 deals with diseases spread by discharges from the respiratory tract. Part 3 with disease of intestinal origin. Parts 4 and 5 with diseases transmitted by insects and animals and Part 6 with venereal and other diseases

The style is clear and simple and there is a minimum of technical language. The author shows his tropical training and his descriptive powers in the short yet vivid description of a cholera post-mortem. This book is well worth reading

E. B. SMITH

RATS AND HOW TO DESTROY THEM By MARK HOVELL, F.R.C.S., with introduction by S L BENSUSAN William Wood & Co, New York, 1924 Price, \$5.00

This book is a very complete work on the destruction of one of the worst pests known to civilization. It not only makes one realize the terrific monetary cost to which man is put when they are present, but it also emphasizes the fact that they are disease breeders and carriers

The chapters on the elimination of the rodent are very comprehensive and complete. They are absolutely vital to those who are interested in this phase of work.

The book is an asset to the commercial man as well as the sanitarian or public health expert.

J J W

LIVING ORGANISMS An Account of Their Origin and Evolution By EDWIN S GOODRICH, F.R.S. 12mo of 200 pages with illustrations London, Clarendon Press, New York, Oxford University Press, 1924 Cloth, \$2.00

An extremely interesting little book of 200 pages, including a bibliography and index, which deals "with modern views on the nature of life and the relation of living organisms to their environment, and with the latest advances in our knowledge of Heredity and kindred problems." It is a good introduction to the study of organic evolution, available for both scientific student and general reader. There are nine chapters devoted to: I. Nature and Origin of Life, II, Cellular Structure of Organisms, Reproduction, Death, III, Darwinism and Heredity, IV Variation and Factors of Heredity—Determination of Sex, V, the Struggle for Existence and Natural Selection, VI, Isolation and Sexual Selection, VII, Phylogeny and Classification, VIII, Geological record of success and failure, IX, Psychology and Evolution of Intelligence. There are sixty illustrations. The style is very clear and the subject matter, arranged as it is by one eminent in the fields of zoology and comparative anatomy, reflects the views of the great masters who have, in the past and present, devoted their lives to the study of life on this earth. We recommend this book as filling a very important need for busy people who feel the necessity of having some grasp on a subject of first importance to those whose duty it is to stand sponsor for the health of the community

J M VAN COTT

A SYNOPSIS OF SURGERY Illustrated. By ERNEST W HEY, GROVES, M.S., M.D., B.Sc. (Lond.), F.R.C.S. (Eng.) Seventh Edition William Wood & Co, New York, 1925 Price, \$5.00

A very concise presentation of the subject is offered in this volume. Particular stress is laid on the important symptoms and diagnostic signs of surgical diseases, whereas treatment is very briefly considered.

It should be particularly valuable to the general practitioner as an aid in differential diagnosis because the text is so arranged that reference to the salient features of each disease can be readily made.

HARRY KOSTER

THE RADIOLOGICAL EXAMINATION OF THE MALE URETHRA By G L S KOHNSTAM M.R.C.S. (Eng.), L.R.C.P. (Lond.) Preface by SIR JOHN THOMSON-WALKER OBE M.B., F.R.C.S. William Wood & Co, New York, 1925 Price, \$5.50

This small volume is a most interesting presentation of one of the more recent developments in the diagnosis of pathological lesions in the male urethra and bladder neck. It is very well illustrated and should be carefully studied by everyone who is interested in diseases of the urinary organs in the male.

N P R.

THE NORMAL DIET A Simple Statement of the Fundamental Principles of Diet for the Mutual Use of Physicians and Patients By W D SANBURN, M.S., M.D., Director Potter Metabolic Clinic, Santa Barbara Cottage Hospital. Illustrated The C. V Mosby Co, St Louis, Mo., 1925 Price, \$1.50

In this little book we at least can read about something normal. It is very instructive and brings out some things in diets that we are sure are not generally known.

It can be read in less than an hour and will save one many day's time when subsequently writing out a diet.

KENNETH MAC INNES

PERSONAL AND COMMUNITY HEALTH By CLAIRE ELSNIERE TURNER, Associate Professor Biology and Public Health, Mass Institute Technology. Illustrated. The C. V Mosby Co, St Louis, 1925 Price, \$2.50

This book, written as a text for students, is admirably suited for the purpose, although it is too elementary to be used as a text in the medical college. For the individual it offers excellent advice in personal hygiene. One feature which will be found especially valuable to the student who wishes to go more deeply into the subject of public health generally or into some particular phase of the subject is the extensive bibliography which the author furnishes at the end of the book.

E H. M

THE MEDICAL ASPECTS OF CHEMICAL WARFARE. By EDWARD B VEDDER Lieut. Colonel, M.C., U.S.A. With a chapter on the Naval Medical Aspects of Chemical Warfare, by DUNCAN C WALTON, Lieut. Commander, M.C., U.S.N. Octavo of 327 pages Baltimore, Williams and Wilkins Company, 1925 Cloth, \$6.50

The reviewer must admit he did not read this book through. He would have liked to have read it but his ignorance of several technical phases of the subject prevented him from continuing. But what he did read more than repaid him for the time consumed. He is sure that to one who is interested in this subject and understands physics as applied to chemical warfare, elementary chemistry of Chemical Warfare, meteorology and the characteristics of smoke and gas clouds, will find the whole book one of fascinating interest.

Every physician who is a war veteran will read this book with understanding and pleasure

The illustrations are good. Particularly the reviewer would say a word about the book from a typographical standpoint it is perfect.

T W

VISUAL FIELD STUDIES By RALPH I LLOYD M.D., F.A.C.S. Octavo of 216 pages with 124 illustrations New York, The Technical Press, 1926 (For sale by E. C Swezey, 50 Pine Street, New York City) Cloth, \$6.00

We have received a great deal of pleasure and profit in reading Dr Lloyd's book. It is well printed and bound, and the illustrations are excellent and to the point.

In the first chapter, he has given a history of perimetry. The next chapter is devoted to the physiology of the retina and the practical application to field examination.

In the third part is taken up the subject of normal fields and blind spot with a description of the instruments used from the first and simple device of Von Graefe to the improved ones of today, and a description of the technique to be used in making visual field measurements.

According to the author any case in which there is a vision with correction of less than 20-20 for which no explanation can be found in the various media, is a fit case for visual field study.

Next is taken up in order, the effect of Chorio-Retinal diseased conditions, Retro-Bulbar Disease, Chiasm Disease, Tract Disease and lesions behind the Thalamus and in the Cortex.

We have here then in this book a comprehensive presentation of the subject in a form most accessible.

CHARLES A. HARGITT

THE EFFECTS OF IONS IN COLLOIDAL SYSTEMS By Dr LEONOR MICHAELIS 12mo of 108 pages Baltimore, Williams and Wilkins Company, 1925 Cloth, \$2 50

The monograph is made up of the material presented by the author in a series of lectures in this country. A resume of the changes produced in colloidal systems by various types of ions is given and the results of such action interpreted in terms of absorption phenomena. Donnan's theory of membrane equilibria is mentioned briefly. The application of these physico-chemical changes in colloidal solutions to biology is always kept in view. The book is not too technical for the general reader interested in the fundamental facts of living processes.

A. GOERNER.

SIMPLIFIED NURSING. By FLORENCE DAKIN R.N. Octavo of 499 pages, illustrated Philadelphia and London, J. B. Lippincott Company, 1925 Cloth, \$3 00

The object of this book is to present the principles and the practice of nursing in a way that they may be made available to the members of a family who are caring for a patient, to a practical nurse, or to a trained attendant.

The matter is presented in the form of lessons, which follow the general plan of definition, explanation and instruction, with caution, safe-guard and note, where needed. The arrangement of lessons is well adapted for the use of High School classes in Nursing.

The last part of the book is devoted to Special Nursing, and includes a discussion of bacteriology, communicable diseases and emergencies. There is a very serviceable Supplementary Reading List, Glossary and Subject Index.

This book serves a useful purpose. It is simple enough to be understandable by and therefore available to, the home nurse and the practical nurse, and, at the same time, it is sufficiently inclusive and accurate to satisfy the demand for thoroughness and accuracy in nursing instruction.

J. R.

MODERN MEDICINE. Its Theory and Practice in Original Contributions by American and Foreign Authors. Edited by SIR WILLIAM OSLER, Bart., M.D., F.R.S. Third Edition, thoroughly revised. Re-edited by THOMAS McCRAE, M.D., assisted by ELMER H. FUNK, M.D. Volume 1 Octavo of 845 pages, with illustrations. Volume 2 Octavo of 891 pages, illustrated. Volume 3 Octavo of 1052 pages, with illustrations. Philadelphia and New York, Lea and Febiger, 1925-26. Cloth \$9 00 per volume.

Medical books grow old and are forgotten, except for those who like to look back at the milestones in the progress of science, or else they are revised and come to us again with a maturity and strength seldom seen in a first edition. What is true and fine in the youth of the book is preserved and with the better perspective of a new day the subject can be traced and illuminated with more precision and with the advantage of a knowledge of the newer discoveries. So Osler's Modern Medicine is reborn.

In the twelve years that have elapsed since the appearance of the Second Edition much of importance has developed. The revision represents a tremendous amount of work which is more than justified in the re-

sult. A critical review of so many exhaustive articles is hardly possible. The names of the contributors carry much weight, but were each section anonymous, the completeness and skill of presentation would be commendation enough.

Volume 1 covers bacterial diseases and the mycoses. Volume 2 includes diseases of unknown etiology, protozoan and spirochetal infections, diseases caused by animal parasites, diseases due to physical agents, chemical and organic agents and deficiency diseases. The third volume is given over to diseases of metabolism and diseases of the digestive system.

These volumes furnish a review of modern medical knowledge such as should be in the library of every practicing physician.

T. H.

BUCHANAN'S TEXT-BOOK OF FORENSIC MEDICINE AND TOXICOLOGY By JOHN E. W. MACFALL, M.D., D.P.H., M.B. Ch.B. Pa.C. Octavo of 445 pages, with illustrations. Ninth Edition, revised and enlarged. New York, William Wood and Company, 1925 Cloth, \$5 00

This little work in parts is as good a treatise as has been written on this subject. The mode of legal procedure is purely English and not adapted to our methods. The post-mortem examination and identification of the mode of death is as fine an article as exists. The chapters on rape, pregnancy, infanticide are less clear and useful. That on inheritance, legitimacy, impotence and sterility, malpractice, neglect of duty, feigned diseases and wills will not be found of much use to doctors outside the British Isles. The chapter on mental unsoundness is the weakest part of the book as the psychiatry is that of fifty years ago and a modern physician would find it hard to identify some of the classifications which is based on British Judicial opinion and not on medical.

A. C. BRUSH

THE HISTOLOGY OF THE MORE IMPORTANT HUMAN ENDOCRINE ORGANS AT VARIOUS AGES By EUGENIA R. A. COOPER, M.D. Octavo of 119 pages, with illustrations. London, Humphrey Milford, New York, Oxford University Press, 1925 Cloth, \$4 00 (Oxford Medical Publications)

This book is based upon the findings of a study of the endocrine glands obtained by autopsy. While some glands pass through various stages depending upon the age of the individual, others maintain a normal degree of activity through life. The thymus and the thyroid show changes incidental to age, while the parathyroids do not.

The description of the structural changes observed in the glands are detailed and should prove of great value to others for comparative purposes. The book should prove to be very helpful to all interested in the subject.

M. B. GORDON

HANDBOOK OF PATHOLOGY By C. Y. WANG M.D., Edin., B.Sc., Vict., F.R.C.P., Edin. with two hundred and eighty-two illustrations. William Wood and Co., New York, 1925 Price, \$7 00

This work is written with the especial purpose of presenting, particularly to medical students, a pathology which is concise as well as comprehensive. It is given over to the more important pathological conditions, paying particular attention to the etiology and morbid anatomy.

The author has inserted plates which add greatly to the attractiveness of the volume and well illustrate the salient points of the microscopic pathology. The book may be in no way considered as replacing a general pathology, the author's aim in this edition is devoted to the fundamentals without discursive detail.

R. E. CAMPBELL



BOOKS RECEIVED



Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

EMERGENCY SURGERY The Military Surgery of the World War Adapted to Civil Life. By GEORGE DE TARNOWSKY, M.D., F.A.C.S., D.S.M. Octavo of 718 pages, with 324 illustrations Philadelphia and New York, Lea and Febiger, 1926 Cloth, \$7 50

THE CLINICAL INTERPRETATION OF THE WASSERMANN REACTION By ROBERT A. KILDUFFE, A.B., A.M., M.D. Octavo of 203 pages, with illustrations Philadelphia and New York, Lea and Febiger, 1926 Cloth, \$2 50

SURGICAL CLINICS OF NORTH AMERICA Volume 6, Number 2, April, 1926 (San Francisco Number) Published every other month by the W. B. Saunders Company, Philadelphia and London Per Clinic Year (6 issues) Cloth, \$16 00, paper, \$12 00

HUMAN PHYSIOLOGY By JOHN THORNTON, M.A. Third Edition Completely revised by WILLIAM A. M. SMART Octavo of 463 pages with 281 illustrations London and New York, Longmans, Green and Company, 1926 Cloth, \$3 75

THOMAS SYDENHAM, CLINICIAN By DAVID RIESMAN, M.D. 12mo of 52 pages New York, Paul B. Hoeber, Inc., 1926 Cloth, \$1 50

OUR TIMES The United States 1900-1925 Vol. 1 The Turn of the Century By MARK SULLIVAN Octavo of 610 pages, with illustrations New York and London, Charles Scribner's Sons, 1926 Cloth, \$5 00

THE MEDICAL CLINICS OF NORTH AMERICA Volume 9, Number 5, March, 1926 (Chicago Number) Vol. 9, Number 6, May, 1926 (Chicago Number) Published every other month by the W. B. Saunders Company, Philadelphia and London Per Clinic Year (6 issues) Cloth, \$16 00, paper, \$12 00

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION Edited by MRS. M. H. MELLISH, H. BURTON LOGIE, M.D., and CHARLOTTE E. EIGEN MANN, B.A. Volume XVII 1925 Octavo of 1078 pages with 252 illustrations Philadelphia and London, W. B. Saunders Company, 1926 Cloth, \$13 00

PEDIATRICS By Various Authors Edited by ISAAC A. ABT, M.D. Volume 8 Octavo of 1102 pages, with 388 illustrations, and General Index to Volumes 1 to 8 Philadelphia and London, W. B. Saunders Company, 1926 Cloth, \$10 00 per volume. Sold by subscription.

PARENTHOOD AND THE NEWER PSYCHOLOGY Being the Application of Old Principles in a New Guise to the Problems of Parents with Their Children. By FRANK HOWARD RICHARDSON, A.B., M.D. Octavo of 200 pages New York and London, G. P. Putnam's Sons, 1926 Cloth, \$1 75

TEXT-BOOK OF MATERIA MEDICA FOR NURSES Compiled by LAVINIA L. DOCK, R.N., and JENNIE C. QUIMBY, R.N. Eighth Edition 12mo of 317 pages New York and London, G. P. Putnam's Sons, 1926 Cloth, \$2 25

MATERIA MEDICA AND THERAPEUTICS INCLUDING PHARMACY AND PHARMACOLOGY By REYNOLD WEBB WIL-

COX, M.A., M.D. Eleventh Edition Octavo of 798 pages Philadelphia, P. Blakiston's Son and Company, 1926 Cloth, \$5 00

THE INTERNATIONAL MEDICAL ANNUAL A Year Book of Treatment and Practitioner's Index Forty-fourth Year, 1926 Octavo of 555 pages with illustrations. New York, William Wood and Company, 1926 Cloth, \$6 00

MODERN METHODS IN THE DIAGNOSIS AND TREATMENT OF HEART DISEASE. By FRANCIS HEATHERLEY, M.B., B.S., F.R.C.S. Second Edition 12mo of 269 pages New York, William Wood and Company, 1926. Cloth, \$3 75

BLOOD CHEMISTRY COLORIMETRIC METHODS FOR THE GENERAL PRACTITIONER. With Clinical Comments and Dietary Suggestions By WILLARD J. STONE, B.Sc., M.D. Second Edition, revised. Octavo of 129 pages. New York, Paul B. Hoeber, Inc., 1926 Cloth, \$3 25

THE PRINCIPLES OF ANATOMIC ILLUSTRATION BEFORE VESALIUS An Inquiry into the Rationale of Artistic Anatomy By FIELDING H. GARRISON, A.B., M.D. 12mo of 58 pages with illustrations. New York, Paul B. Hoeber, Inc., 1926 Cloth, \$2 50

A BIPOLAR THEORY OF LIVING PROCESSES By GEORGE W. CRILE. Edited by AMY F. ROWLAND Octavo of 405 pages, with illustrations New York, The Macmillan Company, 1926 Cloth, \$5 00

EXPERIMENTAL PHARMACOLOGY AS A BASIS FOR THERAPEUTICS A Text-Book for Students and Physicians By DR. HANS H. MEYER and DR. R. GOTTLIEB Second edition in English translated by VELTYEN E. HENDERSON from the Seventh Revised German Edition. Octavo of 656 pages with illustrations Philadelphia and London, J. B. Lippincott Company, 1926 Cloth, \$7 00

NURSERY GUIDE FOR MOTHERS AND CHILDREN'S NURSES By LOUIS W. SAUER Ph.D., M.D. Second edition. 12mo of 206 pages St. Louis, C. V. Mosby Company, 1926 Cloth, \$2 00

DISEASES OF THE SKIN By RICHARD L. SUTTON, M.D., LL.D., F.R.C. Sixth edition, revised and enlarged Octavo of 1303 pages, with 1147 illustrations, and 11 colored plates St. Louis, C. V. Mosby Company, 1926 Cloth, \$12 00

THE THYROID GLAND By PROF. CHARLES H. MAYO and PROF. HENRY W. PLUMMER. Beaumont Foundation Annual Lecture Course IV, 1925 12mo of 83 pages St. Louis, C. V. Mosby Company, 1926 Cloth, \$1 75

A MANUAL OF NORMAL PHYSICAL SIGNS By WYNDHAM B. BLANTON, B.A., M.D. 12mo of 215 pages St. Louis, C. V. Mosby Company, 1926 Cloth, \$2 50

NAVY (HEALTH) STATISTICAL REPORT OF THE HEALTH OF THE NAVY FOR THE YEAR 1923 Octavo of 149 pages. London His Majesty's Stationery Office Adastral House, Kingsway W. C. 2 New York British Library of Information, 44 Whitehall St., 1926 Paper, 5s

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THE EARLY RECOGNITION OF THE VARIOUS TYPES OF SYPHILIS *

(A DIAGNOSTIC STUDY OF ONE HUNDRED AND FIFTY CONSECUTIVE CASES, TOGETHER WITH THE DESCRIPTION OF A NEW ORAL SIGN OF THE DISEASE)

By ALBERT CRANCE, M D, GENEVA, NEW YORK.

GENERALLY speaking, we are all fairly familiar with the course that syphilis takes while invading the human body, chiefly, that it starts with a chancre and goes on into a secondary stage with its characteristic rash, sore throat and occasionally alopecia, and later into the third stage which may include pathology in any part or parts of the body. The typical textbook picture of the disease has been dwelled upon so much that the obscure types or atypical cases are frequently overlooked.

The principal purpose of this paper is to emphasize a few of the more uncommon points in the diagnosis of the disease but which, relatively speaking, are equally as important if they arrive at a final diagnosis of the disease. It matters not necessarily, how one arrives at the final diagnosis if one has been able in his efforts to diagnose the presence of syphilis because the ultimate purpose of diagnosis in any lesion is to guide us in the proper treatment. The patient with obscure syphilis, who has been "the rounds" without definite diagnosis, wants to be told what his trouble is, and, when once the case is diagnosed he is invariably benefited by specific treatment. In practically all medical and surgical diseases, syphilis is to be considered. It may be masking itself in one way or other, trying to puzzle the physician, because the disease, as Osler has stated, may mimic all other diseases. This statement applies to all three stages of the disease, but perhaps it applies to better advantage in the later stages.

After reviewing a fairly large series of carefully studied cases, there are certain definite conclusions to be drawn therefrom. In the first stage of the disease, that is the primary lesion or chancre, the lesion is frequently mistaken for something else. The diagnosis of this lesion cannot always by any means be made clinically. Here, our laboratory findings are very essential. The spirocheta pallida, when demonstrated in the

serum from the lesion, is conclusive. At this point it must also be emphasized that the blood Wassermann test will invariably be negative and consequently, is of no value in diagnosing the primary lesion of syphilis from other conditions. And yet we find that a certain number of cases have had Wassermanns taken in this first or early stage which were negative and have gone elsewhere to have a laboratory diagnosis made even before the secondary symptoms appear.

It must also be remembered that the primary lesion of the disease may occur on any part of the body and does not necessarily limit itself to the genitals or to the lips or tongue. The writer has, in fact, seen one case in which the primary lesion was on the back of the hand, indeed a most remote location.

History—Considerable stress is made in textbooks regarding the time of appearance of primary lesions, namely that they occur fourteen to twenty-eight days following exposure. Occasionally, this is of some value but in the majority of cases, if we are convinced at all by the history, we are likely to arrive at wrong conclusions. The majority of histories in these cases are of no value. Histories in the later stages of the disease are still less valuable. The majority of cases of neuro-syphilis or other obscure types, when told what they have, will deny that any primary lesion ever existed. A great many of these cases, however, will admit a previous gonorrheal infection, perhaps ten or thirty years prior. So often is this coincidence that it seems logical to believe that many cases of gonorrheal infection are accompanied with chancre either in the urethra or, as is often found, a small lesion tucked away under the frenum. In women, the history cannot at all be relied upon for the main reason that the majority of women have no visible signs of the disease until the secondary stage. A large percentage of chancres occur on the cervix or in the vaginal orifice and are consequently not visible. Therefore, in the majority of cases, it is logical to discount any value from the history.

* Presented at a meeting of the Penn Yan Hospital Staff, March 16, 1926, and before the Geneva Clinical Club, March 8, 1926.



FIG 1—Illustration showing the triangular or fan-shaped whitish thickening as it occurs in the mucous membrane at the angles of the mouth in latent syphilis. In this particular case the only additional sign was a mild tubercular syphilis on the forearm as shown in Fig 2. The Wassermann was 4 plus. The condition is usually bilateral.

In the secondary stage, the differential diagnosis becomes mostly a matter of dermatology. The character of the rash, which is maculo-papular in type, has a characteristic appearance but unaccompanied by symptoms. It usually starts on the abdomen, chest or back and thence to the arms or thighs. The most characteristic word the writer can use in describing it is that it appears as a reflection, or it might be described as appearing under the skin. The sore throat which accompanies this stage may vary considerably in detail. In fact, it may not even be present. It may vary from a slightly reddish inflamed throat to severe ulceration in the region of the tonsillar pillars or the uvula. The alopecia, when present, is usually of the "moth-eaten" appearance with ragged edges.

The third stage is indeed a separate chapter in the study of medicine. We are all aware that syphilis *may* hide itself, but as a matter of fact, it *does* hide itself, and for that reason the points which are made most of in this paper are those relative to the later stages or obscure types of the disease. There is much to be learned regarding the pathology of this third stage as to just what occurs in various parts of the body. However,

such workers as Warthin, Stokes and others have conclusively proven that the spirochete remains active in such organs as the spleen and liver and they have even been demonstrated in the heart muscle. For simplifying the third stage, it is perhaps easiest to classify under three separate headings, namely Dermatological, internal and neuro-syphilis. Gumma may of course, involve either.

The Complaint—These patients of course, may complain of a long list of ailments, depending upon the particular part of the body affected with the disease. Most of these complaints do not suggest the disease, except one in particular which is principally a group of complaints regarding general weakness, with noticeable loss of strength in the legs perhaps associated with some stomach distress and at times some frequency of urination. This chain of complaints may often be associated with an early involvement of the spinal cord.

A New Oral Sign of Late Syphilis—The writer has made a fairly extensive study of the literature dealing with oral signs of the disease and has been unable to find any description of the following condition which consists chiefly of a triangular or fan-shaped thickened area of leukoplakia in the mucous membrane at the angles of the mouth. In the accompanying photograph (Fig 1) it will be noticed that this sign is clearly illustrated. In this particular case the only additional sign was a tertiary tubercular syphilide lesion on the forearms. The Wassermann was four plus. In this series of 150 cases, 21 presented this oral sign. During the course of the general examination it has become a routine procedure to examine this area. The condition is to be differentiated, however, from irritation due to projecting teeth or severe pyorrhea and also a true leukoplakia of the mouth.



FIG 2—Illustration of a tubercular syphilis lesion on the forearm. There were no other lesions on the body except at the angles of the mouth.

The Examination—One of the reasons perhaps, for stressing routine general examinations in large clinics, is to avoid missing some important finding which may indicate lues. It is

necessary during the course of the examination to look for certain features in practically every part of the body. If this series demonstrates anything at all, it does show the various objects to look for in making our general examinations and especially when we are interested in finding the existence of syphilis.

We are all quite familiar with the primary stage of the disease and yet errors are frequently made. Consequently, we cannot afford to let any venereal sore go along without a special examination for the *spirocheta pallida*. It is surprising, the number of such sores which have been diagnosed as non-specific in which the spirochetes can be demonstrated when the examination is made. Consequently, all such lesions should be examined, as clinical opinions amount to little or nothing at this stage of the disease.

ANALYSIS OF 150 CASES

Males	104 or 67.3%	Early	40
Females	46 or 30.6%	Types—Late	99
		Congenital	11
	150		150

The secondary stage which is also an early stage of the disease, is quite characteristic, however. Any person with a suspicious non-itching general skin rash should have a Wassermann, and also a careful search for the primary lesion, especially in the male. In this series three cases of intra-urethral primary lesions occurred and the diagnosis was not made until the secondary stage developed. It might be well to state here that skin lesions of syphilis occasionally itch, so an itching skin does not rule out the disease.

BLOOD WASSERMANN REACTIONS

Of the 150, 121 were positive, 29 were negative.

Of the 29 negatives, 21 were early *primary* lesions.

4 were also negative in spinal fluids.

4 were positive in spinal fluids.

Therefore, disregarding the 21 early cases with negative blood reactions, there were 121 positive reactions out of 129 in which positives might have been expected, or in other words, 93.7% positive blood reactions.

The blood reactions were as follows:

4 plus	109
3 plus	4
2 plus	4
1 plus	4
Negative	29
	150

Latent syphilis demands a more detailed examination. The pupils will perhaps show the disease more often than other parts of the body. They should always be examined for a difference in their sizes as well as their reaction to light. The Romberg test is often positive or suggestive, and should always be taken. The patellar reflexes should likewise always be taken. If they are exaggerated it may mean neuro-syphilis or if they

are diminished or absent it may mean neuro-syphilis. Compare the two sides. The writer has in several cases noticed that when the right pupil is dilated and the left patellar reflex exaggerated, that the Wassermann is usually positive. Neuritis is fairly frequent. The thighs and girdle region, also the shoulder and arm are frequently affected. One case in this series, a woman, went to seven physicians for a neuritis of her left shoulder and arm before she had a Wassermann taken and the diagnosis of syphilis made. Urinary frequency is more apt to be present when the spinal cord is involved. It is common in locomotor ataxia and frequently these patients are cystoscoped only to find a specific appearance which is termed by Braasch "cord bladder." Hoarseness of voice is also fairly prevalent and is not always due to colds or alcoholism. It is common in syphilis.

Gumma usually presents itself with some definite enlargement of the part or it may appear as a simple elevation beneath the skin, and later has a tendency to ulcerate. In this series, one case of gumma of the breast is reported in which a Wassermann was fortunately taken before the patient was submitted to operation. It closely resembled a tumor. Interstitial keratitis is more often found in the congenital type of the disease. Its picture is quite familiar to all. However, the condition may come on as late as the age of eighteen or twenty and is not to be confused with cases of foreign body in the eye, which of course, is valuable in compensation work. External strabismus may be slight or definitely noticeable. When one of the eyes is noted to be out of alignment laterally, we should keep in mind the possibility of syphilis. Large lower lips are very frequently a late manifestation of the disease. Stomach symptoms are not uncommonly due to the disease and very frequently the symptoms closely resemble those of gastric ulcer. The pain, however, is usually worse when walking. The writer believes that no case presenting indications for gastric surgery should be operated upon until syphilis has been ruled out. At least, the Wassermann should be a routine. The nose may be the only part affected with the disease at times. There may be thickening of the tissue in the nose and sometimes perforation of the septum. Externally it may show hypertrophy and extreme redness. The heart is frequently attacked by the disease. The aorta is a favorite site for the spirochetes to work and many times syphilis is not diagnosed until at the autopsy table a specific aortitis is found. Impotency is also fairly commonly associated with the disease. In this series, 7.2 per cent of the latent cases showed impotency. Alopecia is not very important except in the secondary stage of the disease. The hair, however, has its characteristic "moth-eaten" appearance. Speech impediment occurs frequently enough to be suspicious at



FIG 1—Illustration showing the triangular or fan-shaped whitish thickening as it occurs in the mucous membrane at the angles of the mouth in latent syphilis. In this particular case the only additional sign was a mild tubercular syphilis on the forearm as shown in Fig 2. The Wassermann was 4 plus. The condition is usually bilateral.

In the secondary stage, the differential diagnosis becomes mostly a matter of dermatology. The character of the rash, which is maculo-papular in type, has a characteristic appearance but unaccompanied by symptoms. It usually starts on the abdomen, chest or back and thence to the arms or thighs. The most characteristic word the writer can use in describing it is that it appears as a reflection, or it might be described as appearing under the skin. The sore throat which accompanies this stage may vary considerably in detail. In fact, it may not even be present. It may vary from a slightly reddish inflamed throat to severe ulceration in the region of the tonsillar pillars or the uvula. The alopecia, when present, is usually of the "moth-eaten" appearance with ragged edges.

The third stage is indeed a separate chapter in the study of medicine. We are all aware that syphilis *may* hide itself, but as a matter of fact, it *does* hide itself, and for that reason the points which are made most of in this paper are those relative to the later stages or obscure types of the disease. There is much to be learned regarding the pathology of this third stage as to just what occurs in various parts of the body. However,

such workers as Warthin, Stokes and others have conclusively proven that the spirochete remains active in such organs as the spleen and liver and they have even been demonstrated in the heart muscle. For simplifying the third stage, it is perhaps easiest to classify under three separate headings, namely Dermatological, internal and neuro-syphilis. Gumma may of course, involve either.

The Complaint—These patients of course, may complain of a long list of ailments, depending upon the particular part of the body affected with the disease. Most of these complaints do not suggest the disease, except one in particular which is principally a group of complaints regarding general weakness, with noticeable loss of strength in the legs perhaps associated with some stomach distress and at times some frequency of urination. This chain of complaints may often be associated with an early involvement of the spinal cord.

A New Oral Sign of Late Syphilis—The writer has made a fairly extensive study of the literature dealing with oral signs of the disease and has been unable to find any description of the following condition which consists chiefly of a triangular or fan-shaped thickened area of leukoplakia in the mucous membrane at the angles of the mouth. In the accompanying photograph (Fig 1) it will be noticed that this sign is clearly illustrated. In this particular case the only additional sign was a tertiary tubercular syphilide lesion on the forearm. The Wassermann was four plus. In this series of 150 cases, 21 presented this oral sign. During the course of the general examination it has become a routine procedure to examine this area. The condition is to be differentiated, however, from irritation due to projecting teeth or severe pyorrhea and also a true leukoplakia of the mouth.



FIG 2—Illustration of a tubercular syphilis lesion on the forearm. There were no other lesions on the body except at the angles of the mouth.

The Examination—One of the reasons perhaps, for stressing routine general examinations in large clinics, is to avoid missing some important finding which may indicate lues. It is

tion they have given and also to congratulate them on their painstaking technique.

Summary—In summarizing this series of one hundred and fifty cases one can easily see that the diagnosis of syphilis is not spelled with capital letters in any particular location. Its study demands a knowledge of the pathology of the entire body both externally and internally. Its diagnosis moreover, demands keen and careful observation. There is perhaps no class of cases which really appreciate a diagnosis more than the patients afflicted with some obscure lesion of the dis-

ease, for nearly all of them have made several attempts on previous occasions to find out why they are sick. When told that in most instances they can look forward to being greatly benefited, the encouragement is indeed greater to them than if we told them they had a cancer or pernicious tuberculosis. There is a specific treatment for syphilis and none for the other two mentioned. In conclusion therefore may it be emphasized once again that our examinations be more complete and directed somewhat more toward the things which are not spelled with capital letters.

BULLETS AS EVIDENCE IN SHOOTING CASES IMPORTANT CONSIDERATIONS RELATIVE TO THEIR REMOVAL AND PRESERVATION

By CALVIN H. GODDARD

ASSOCIATE DIRECTOR (LATE MAJOR MEDICAL CORPS U. S. A.) BUREAU OF FORENSIC BALLISTICS
NEW YORK CITY

IT is sad but true that many a man guilty of murder gains an acquittal, and an occasional innocent one meets conviction, through carelessness on the part of those responsible for the collection and preservation of articles of evidence. In shooting cases the important objects, aside from the clothing penetrated, include the weapon, bullet or bullets, and empty shell or shells. The arm ordinarily goes into the hands of the police as do the exploded shells, but the bullet not infrequently remains in the custody of the coroner, medical examiner, or other medical official, until produced in court, and since the projectile alone may tell a very complete, if silent, story, a few words as to its proper recovery and aftercare may not be amiss.

He who removes a bullet from a body at autopsy should be acquainted with certain important facts and keep them constantly in mind. He should know that the missile bears engraved upon its surface a "fingerprint,"—that of the particular arm through which it has passed, that this fingerprint will serve to identify that arm among all others existing today, just as accurately as his own fingerprint identifies him among all the inhabitants of the world, and that the majority of its important landmarks are considerably more delicate than those of a sweat-stained digit upon a piece of glass, almost as easily obliterated by careless handling, and, once obliterated, just as impossible of reconstruction.

Now if you were handed a fragment of glass bearing a fingerprint, evidence of a murder, would you drop it in your pocket, to grind about with the other objects therein, and forget it until the inquest was called, or would you put it carefully away in a properly labelled box until it could be studied adequately? The answer is obvious. And if you fail to do the same in the case of a bullet, under similar circumstances, you are guilty of gross and unpardonable negligence. Yet the

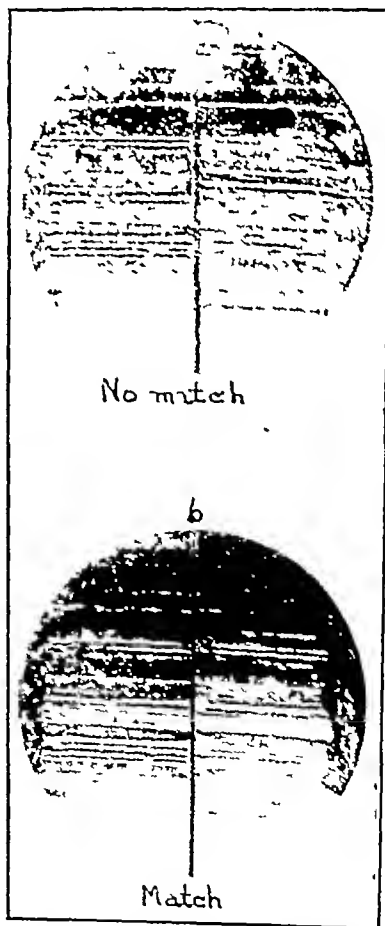


FIG. 1.—Matching the "finger marks" on two bullets placed end to end.

"pocket treatment" is all too often accorded to the recovered bullet, even today (and some pockets have been known to have holes in them) by men who should know better.

least when it is present. The rectal examination should always be made and anything from stricture to ulcerations or condylomata should arouse suspicion. One case of pain in the neck and ears occurred in this series which is of course, less than 1 per cent. It should perhaps be classified with neuritis but it is classed separately to illustrate how syphilis has no preference as to where it may attack the human body. Ptosis of the upper eyelid is more often specific than it is non-specific. Snuffles is a definite sign of congenital syphilis. Its presence in the infant should at least demand a Wassermann on the mother and father when it is not possible in the child. In fact, all cases of congenital syphilis demand careful study of the parents. The mother is always syphilitic, but the father does not necessarily have the disease. Deafness occurs in both the late types as well as occurring in the congenital cases. The disease causes an ossification of the ear drum. The skin is occasionally the site for late manifestations principally in the form of tubercular syphilide as well as ulcerating gummata. Lesions in the mouth take the form more often of white thickened areas and especial attention has been called previously in the paper to a new oral sign of the disease. Headaches occur fairly frequently. Eight cases of headaches in this series were due to syphilis. Paralysis of the limb, if unilateral, is more apt to occur in children with the congenital type of the disease, whereas, bilateral paralysis more often occurs in the latent acquired type following spinal cord involvement. The finger nails and toe nails are not to be forgotten. Specific onychia is to be considered in differentiating the various diseases of the nails. In the consideration of congenital syphilis we should keep in mind three definite signs known as Hutchinson's Triad. These are Interstitial Keratitis, Hutchinson Teeth and Ossification of the Tympanum. When these three findings occur in a child the diagnosis can be made without a Wassermann. It is a positive triad.

Blood and Spinal Fluid Wassermann—In this series of cases, it will be noticed that the Wassermann test was positive in over ninety-three per cent, in those on which a positive reaction could be expected. It will be further noticed that very few cases which did not show at least a one plus blood, showed a positive spinal fluid Wassermann. It would seem that too often the spinal fluid is a concluding factor. There is no question that spinal puncture is being done too much and too often at the discomfort of the patient. If we find sufficient cord involvement and other clinical data to establish our diagnosis, together with positive blood Wassermann, we can rest assured that the patient has lues of the central nervous system without taking a spinal fluid. In any event, the treatment should be instituted in the beginning towards the general side of the case rather than the

SIGNS AND SYMPTOMS AS THEY OCCURRED IN 99 LATENT AND 11 CONGENITAL TYPES OF SYPHILIS

	CASES
Pupils	54
Romberg	24
Patellar Reflex	23
Exaggerated	13
Diminished	
Fan-shaped thickening in mucous membranes at angles of mouth	21
Skin (Tertiary only)	15
Neuritis	15
Thighs and Abdomen	5
Shoulder and Arm	3
Intercostal	
Stomach Symptoms	10
(Pain worse when walking)	10
Heart (and Aortitis)	8
Urinary Frequency (Cord Bladder)	7
Interstitial Keratitis	7
Impotency	7
Headaches	6
Hoarseness	6
External Strabismus	5
Deafness	4
Ptosis of Eyelid	3
Rectum (Incl 1 Stricture)	3
Paralysis of Limb	3
Speech Impediment	3
Nose (Incl. 1 Rhinophyma)	3
Snuffles	2
Specific Hypertrophy of Lower Lip	2
Gumma (Breast and 1 at Elbow)	2
Nails	1
Pain (Neck and Ears)	1
Numbness of Hands	
Hutchinson's Triad in Congenital Syphilis	3
Interstitial Keratitis, Hutchinson Teeth, Ossification of Tympanum	

OCCURRENCE OF SPINAL FLUID REACTIONS IN THOSE WITH NEGATIVE BLOOD REACTIONS

Out of the 8 latent cases with negative blood reactions, 4, or 50 per cent, gave positive spinal fluids of which 2 were 4 plus, 2 were 2 plus

special neurological side. After the patient has had a general course of treatment, the spinal fluid should then be taken, and if positive, treatment should be directed according to the method of Swift and Ellis or by the procedure of spinal drainage (Allen). In this series there are cases which have had good improvement by generalized treatment alone and others in which the results were better when general and spinal treatments were combined. There can be no doubt as to the importance of intraspinal therapy and its use in proper cases is strongly advocated. However, it seems more logical to treat the general infection first and then later, if indicated, the intraspinal treatment. It might be well to mention that it is quite important to know one's laboratory and to get accustomed to interpreting their findings. In this series, the laboratory work has been done by the New York State Department of Health at Albany, New York, and as the summary shows, the percentage of accuracy checks up exceptionally well with the clinical data. The writer wishes to thank this laboratory for the splendid coopera-

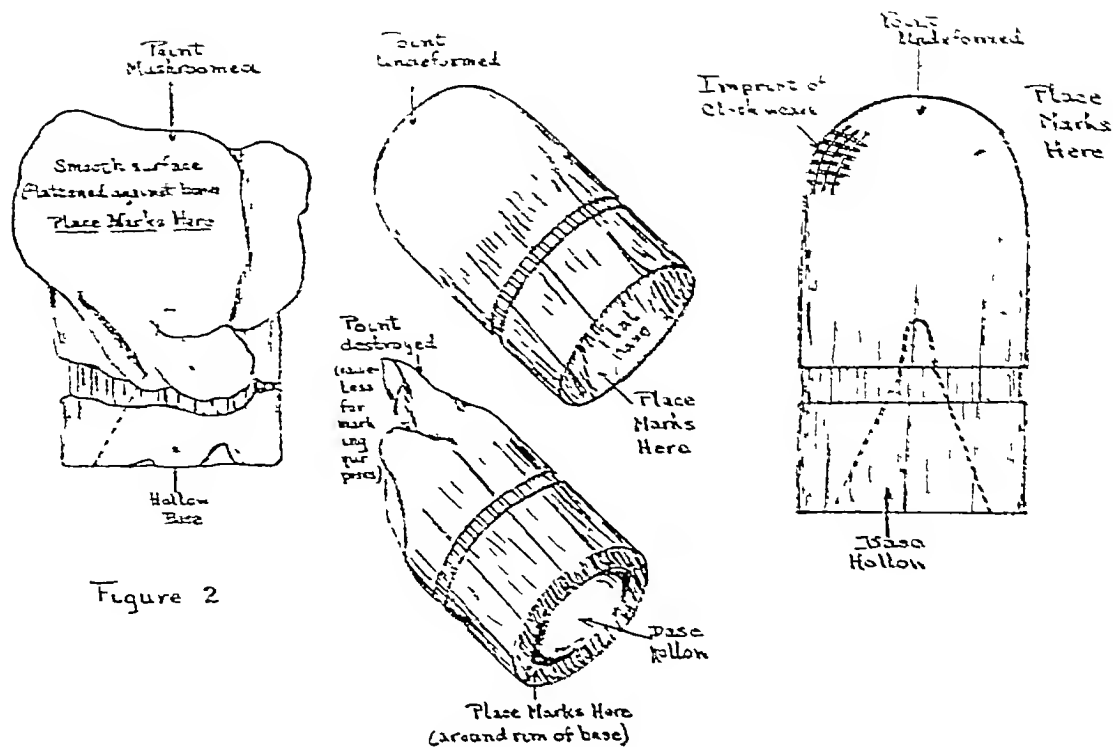


Figure 2

FIG. 4—How to place identification marks on bullets removed from a body

times, following the same trough each time, and gradually deepening it) Where it has a microscopic projection the groove will register a corresponding depression, and vice versa. To the eye, the surface of the finished groove may appear as smooth as glass, but if sectioned transversely and its edge examined under moderate magnification the "wavy" character of its surface will at once become evident

Now bullets are softer than the barrels they traverse, else the latter would soon wear out. Hence the irregularities of the barrel's surface are impressed upon the bullet, rather than the opposite. The result is a series of fine straight lines or striae running along the cylindrical portion of the bullet (the portion in approximation with the bore surface) parallel to the deep cuts left by the edges of the grooves. After an arm has been in use for some time, these markings become decidedly more pronounced, for upon the original very slight irregularities in the surface of the bore are superimposed much more striking ones produced by pitting, rust accumulation, metal fouling, etc.

Furthermore, since each maker must allow more or less tolerance in the execution of the rifling process we find upon accurate measurement (to ten thousandths of an inch) that the width of any one groove (e.g., M-N of barrel A, Fig 2) does not by any means necessarily equal that of the next groove, (O-P) in the same barrel. It may be

several thousandths of an inch wider or narrower. And the same is true as to groove E-F of barrel B measured against the next groove (G-H) within that barrel. And there is of course no constant relationship between these ratios, from barrel to barrel. Thus, one is not necessarily equal to another but may be less or more. Since a bullet becomes, on being fired, virtually a cast of the bore through which it passes, we can, by measuring accurately the width of each land and groove mark left upon it, reconstruct the measurements (at the muzzle) of the several lands and grooves in the barrel that fired it. It should be evident that the manner in which these vary from groove to groove, and land to land, can hold for one individual arm, and only one. Thus we have a second finger print in every barrel for the land-groove measurements on all bullets projected by it will duplicate one another, and its own, exactly. A study of the actual dimensions of the lands and grooves in two barrels from arms of the same model by the same maker, as entered upon them in Fig 2 should demonstrate clearly that accurate measurements of the lands and grooves on 1 bullet fired from either would link it at once to the one from which it issued, and prove the impossibility of its being connected with the other.

But suppose a bullet is badly battered, as by striking bone? This may so destroy or distort the land-groove pattern as to render it useless for purposes of identification. It is rarely that all

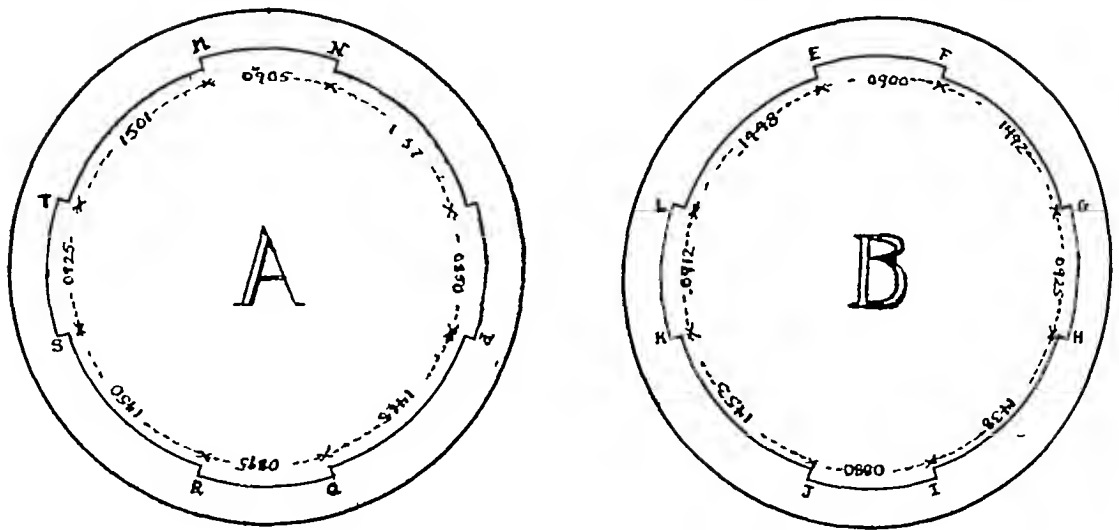


FIG 2—Measurements of rifling grooves

(To promote simplicity, barrels shown above are drawn with but four grooves, while most American manufacturers employ five or six)

Why does the bullet deserve such tender care? Because the grooves and ridges impressed upon its surface by the rifling (and other markings) of the barrel through which it has passed, may be likened to the ridges on the finger tip. But while the finger's ridges number some scores, each approximately as prominent as every other, and disposed in a sinuous formation whose basic difference from any other is readily apparent on comparison, the prominent ridges on a bullet (those inscribed by the edges of the barrel's grooves) number but three to six *pairs*—rarely seven or eight. Further, instead of being curves they are

straight lines, arranged parallel to one another about the cylindrical portion of a bullet, equidistant, and at a slight angle to its axis. As they issue from different specimens of arms of the same make, caliber, and model, they appear *exactly* alike*. There are, it is true, finer ridges also present, varying in number and intensity with the age and condition of the weapon. These are the delicate features, often requiring considerable magnification to bring out properly, and easily distorted or destroyed if the bullet be allowed to rub against other solid objects. Whence do they come, and why do they exist?

They exist by reason of the fact that no two material objects either of God's or Man's fabrication are identically the same. The tool which cuts or "rifles" any one groove in a given barrel undergoes wear during the cutting process, and a magnified photograph of the edge of its cutting surface will *not* be the counterpart of a photograph taken of that same surface at the completion of rifling the next groove in the same barrel, any more than will the undulations or "teeth" in the edge of one safety razor blade be exact reproductions as to form and spacing of those in the edge of the next blade produced upon the same machine. It is humanly impossible for them so to be.

The contour of the surface of the edge of the rifling cutter is going to be reflected in the contour of the bottom of the groove cut by it. (The groove is dug out by a scraping motion, many times repeated, just as you would produce one in a smooth wax surface by drawing the edge of your finger nail, broad side on, across it a number of

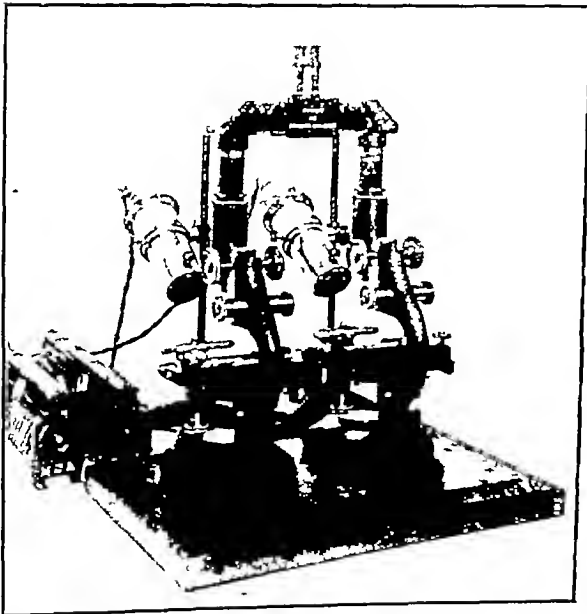


FIG 3—Instrument for comparing the grooves on two bullets

* It is ordinarily easy to differentiate between them as they appear on projectiles which have issued from arms of different makes, since no two manufacturers employ the same width, depth and angular inclination in their rifling.

LEGAL ASPECTS OF OBSTETRICS *

By HARRY M. GUSMAN, M.D., PHILADELPHIA, PA

IT is needless to say that it would be impossible for me to deal with all phases of this subject in a paper of this nature. However, I shall try to take up the more important ones.

Pregnancy. First, let us consider the legal aspects of pregnancy. In civil law, it often becomes the duty of the physician to appear before court and to testify as to the presence or absence of pregnancy in the woman under question, especially in the following types of cases:

- 1 Those in which the virginity of a woman is to be determined
- 2 Those in which a woman claims she was impregnated and is with child by a man recently dead, thus attempting to establish an heir in a disputed title or estate
- 3 Cases in which pregnancy is claimed as a means of enforcing claims for unrequited love or to establish a claim of financial support
- 4 When pregnancy is advanced as a plea to prevent attendance upon the witnessstand in an important trial by jury
- 5 Those instituted for blackmail
- 6 Divorce cases in which the wife is accused of illegitimate gestation
- 7 Cases in which a woman is convicted of a crime and sentenced to capital punishment, but the woman pleads pregnancy to bar execution until the birth of the child is accomplished

It is therefore, important for the medico-legal expert, or the physician appointed by the court, to be well versed in all phases of the diagnosis of pregnancy.

Before undertaking the examination of a patient for court procedures, it is best for the appointed physician to obtain the patient's signature to a statement that she is submitting to the examination of her own free will. Otherwise, the physician becomes liable to legal action on her part, the woman claiming that he examined her against her will. In cases where a woman refuses to submit to an examination, she should be warned by the physician that such action will expose her to suspicion of unfair dealings and may be used as valuable evidence against her.

Diagnosis of Pregnancy. The diagnosis may be *presumptive*, it may be *probable*, or it may be *certain*.

It is presumptive when the woman having been exposed, legitimately or illegitimately, to the possibility of conception, presents some or all of the subjective signs of pregnancy in addition to a

minor degree of abdominal enlargement. It is probable, if these signs steadily increase in intensity and other signs develop at proper periods. A pregnancy is certain, only when there are present to so-called positive diagnostic signs. These include the fetal heart sounds, fetal movements, Chadwick's sign of vaginal and vulvar discoloration, and the painless intermittent uterine contractions of Braxton Hicks. For convenience, the signs of pregnancy are grouped broadly under two headings, namely:

- 1 Subjective—those that the patient experiences
- 2 Objective—those that the physician detects by examination

In legal work, however, the objective signs only are to be considered of importance, since the woman may voluntarily be deceiving the physician by narrating the classical group of symptoms, or she herself may be deceived, as was remarkably demonstrated to us in several of our clinics in cases of pseudocyesis or phantom pregnancy. Pseudocyesis, with the one exception of abdominal enlargement, is entirely a subjective consciousness. A thorough history of the case with a complete examination will usually bring these facts to light. The woman is usually near the menopause when menstrual suppression or irregularity is common and nervous manifestations are frequently exaggerated. Abdominal examination will show an accumulation of fat and a resonant or tympanitic note over its entire surface, no fetal outlines can be detected. Examination of the vulva reveals characteristic changes of advancing years. To be certain, it is best in these cases, to employ an anesthetic as ether gas, or chloroform, when the abdominal enlargement will disappear and the true condition will become evident.

Furthermore, it must be remembered that the signs to be looked for will naturally vary with the period of pregnancy to which the woman has advanced. Thus one would not expect to find the positive signs until the second trimester has been reached.

Since we decided to depend on the objective signs only, we must rely, during the first trimester, on the following for a diagnosis: the uniform enlargement of the uterus, the mammary changes and the four "soft" signs, namely, the softened cervix, the soft and boggy fundus of the uterus, the softened uterine segment, and the softened and enlarged mammae.

During the second trimester, the positive signs will be developed, and from the fifth month, when the fetal heart sounds can be detected, to the end of pregnancy—no difficulties should be experienced in diagnosing the true condition.

Aside from the question of pregnancy from

* (Read at a meeting of the Undergraduate Obstetric Society Jefferson Medical College, April 21, 1926.)

land and groove markings are destroyed, however, and if the outlines of a single land or groove, but a fraction of an inch long, remain intact, the fine striations within its borders may readily suffice to link the bullet to the arm that fired it, providing the suspect weapon be available. But what if the coroner or pathologist, in removing the projectile, grasps it with the rough jaws of a heavy pair of forceps instead of opening down to it a tract sufficiently large to make its manual removal possible? In so doing, he runs a chance of ruining the case, so far as identification by a study of the projectile is concerned, nearly as completely as though the missile had never been located at all.

Again, he may wish to place upon the bullet some identifying mark, so that he can swear in court that this is actually the one which he removed from the body of the deceased. The smooth cylindrical portion offers a fine location for such a mark but, from our standpoint, the least desirable. The point of choice is the base if it be not of the hollow type and is not unduly distorted. Otherwise let him by all means select the rounded (ogival) area at the tip (point), where it will not overlie and destroy any of the groove markings. Here again he must be careful, as the point often carries upon it the weave pattern of any thick piece of material—such as a coat or vest—through which it has passed. When more than one missile has penetrated a body this pattern may suffice to connect a given bullet with its point of entry, when this is otherwise uncertain. It should always be preserved intact, and defacement of it can readily be avoided if ordinary precautions are taken. See Fig 4.

I have stated that, if a suspect arm be available, it should be possible to determine whether or not this fired the bullet or bullets recovered from the body. The method of making the necessary tests is described at length in a paper recently published in *The Military Surgeon** and need not be repeated here. Suffice it to say that by the use of a specially designed "comparison" microscope

(Fig 3) the images of fatal and test bullets may be superposed, and their linear striae and land-groove measurements studied in detail and at leisure. If similar markings are present on each (indicating passage through the same barrel) they may be readily recognized (Fig 1, b) whereas the absence of such markings is also easily determined (Fig 1, a). Exploded shells are equally valuable for the evidence they offer, and may be linked up to a fatal arm by methods similar to those applied to bullets.

To recapitulate. In shooting cases of whatever nature, bullets should so be removed that their surfaces will receive no scars or abrasions from metal or other instruments. (After death has taken place there is no reason why this cannot be possible. In the event of removal from the living, however, surgical considerations may take precedence.)

2 Identifying marks should, if possible, be placed on the base of the bullet—otherwise on the rounded portion near the point, avoiding in the latter instance any criss-cross markings already present, since these may reveal the texture of the material penetrated before entry into the victim's body.

3 Under no circumstances should any marks be made upon the cylindrical portion of a projectile.

4 Once removed, bullets should be carefully boxed and labelled. Notes should be made as to particulars of time, place, and date of removal, witnesses present, etc., aside from any pertinent medical data.

5 When a particular weapon is suspected of having fired a given bullet, linkage between bullet and arm is readily effected provided the "finger-prints" which the former bears are reasonably well preserved. This holds equally true in the case of exploded shells.

6 If no suspected weapon be available, it is frequently possible, from a study of the fatal bullet alone, to name the make, caliber, and model of weapon from which it issued, and this information in itself may serve to locate the guilty arm.

* Vol 58, No 2 (Feb.), 1926 p 142

a complete examination, including the breasts, the abdominal surface, the genital organs and a microscopic study of the uterine scrapings for decidual cells and chorionic villi

Delivery in the Dead In addition to the diagnostic features which were discussed under the chapter of Pregnancy in the Dead, one would find at autopsy, some characteristic changes in the uterus and in the birth canal. The recently pregnant uterus decomposes rapidly after death, due to the excessive hypertrophy during gestation, so that the uterus will be converted into a putrescent mass long before the other tissues yield. Quite the contrary is true of the unimpregnated uterus, which would be firm and resistant long after the other soft structures have undergone putrefaction.

This would be taken as positive proof of chastity of the woman. If delivery has occurred just prior to her death, and the examination be made within a few days or weeks, the usual lesions in the vagina and cervix will be found, together with perineal and vulvar lacerations and contusions. Some very interesting instances of concealment of birth have been recorded in which advantage has been taken of the phenomenon known as "Coffin Birth." As the term implies, the birth of a child in the coffin between the thighs of its mother, has been attributed to the action of the gases of decomposition which cause the expulsion of the fetus. Thus certain women have placed a dead child in a similar position in the coffin of a woman recently deceased in order to divert suspicion from themselves in cases of infanticide or to avoid the stigma of illegitimacy. An examination of the body of the deceased woman readily discloses the perpetrated fraud.

Unconscious Delivery "Can a woman unconsciously give birth to a child?" Such a question may confront the physician testifying in court in a suit for infanticide. The woman in such a case may claim that the life of the infant was lost, because she was not aware of the fact that parturition was taking place, or she may claim that she mistook a labor pain for a desire to evacuate the bowels and thus dropped the child down a privy or a commode, thus killing the child.

Any one who has seen different women during parturition will agree that it is indeed rare for full time babies to be delivered without the knowledge of the mother, unless she be under the influence of an anesthetic, narcotic, or intoxicating liquor. Especially, must we consider this feat improbable in primipara. Although unconscious delivery is exceedingly rare, we must recognize its possibility during profound sleep, during a state of coma or syncope, in an apoplectic, eclamptic, hysteric, or asphyxiated woman. A woman suffering from

paraplegia might readily give birth without knowing it and, of course if the woman is dying, the delivery would be accomplished either artificially or spontaneously without her conscious volition. Unless the woman is suffering an attack of any one of the above conditions at the time of parturition, she should not be ignorant of what has occurred, immediately after parturition has taken place, but if she denies any knowledge of the affair, her guilt should be assumed, even though she may be blessed with a roomy pelvis and strong expulsive powers. If the woman, being accredited with a normal amount of intellect, claims she was unaware of her condition of pregnancy prior to parturition, she should be suspected of attempting to conceal her crime. Especially is this true if the woman is not married.

Criminal Abortion The courts do not recognize any distinction between the terms abortion, miscarriage, and premature labor. They refer to the expulsion of the products of conception at any time before full term, as miscarriage or abortion.

Of course, we are taught that abortion is the expulsion of the ovum at any time previous to the formation of the placenta which is about the end of the third month. Miscarriage is the discharge of the fetus from the time of formation of the placenta to the time of viability of the child, which is the seventh month. Premature labor is the discharge of the fetus from the time of viability, but before full term. Criminal abortion, as the term implies, is recognized by all courts as a crime. It consists in destroying by any means whatsoever, without just and insufficient cause, the life of an impregnated ovum at any stage of its development. The legal penalty for criminal abortion varies in different states, but all include imprisonment and fines.

When a physician is called in to see a case which is apparently an abortion, it is a safe rule to follow to consider all abortions criminal unless proven to be otherwise. If the physician has sufficient evidence to believe that the case is a criminal abortion, it is best to avoid interference with the uterus until he has gained as much knowledge as possible concerning the case. In the meanwhile he should institute an expectant plan of treatment, and notify the authorities that he has a "suspicious" case under his care. He must not however, betray the name of the patient, since he may become liable to prosecution. A noteworthy example of this occurred in England recently. An obstetrician was called to attend a patient with a miscarriage. There was doubt as to the legitimacy of the pregnancy. Without stating his reasons, the physician advised his family not to meet socially the patient in question. This excited gossip and led to a suit of libel against the physician.

purely a diagnostic angle, many interesting questions may arise in the course of the trial. Thus the court may inquire—"Is it possible for this young girl, presumably too young for gestation to arise, to be pregnant?" Or on the other hand, the woman under question is well beyond the usual age of menopause and again the question is asked, "What is the latest period at which pregnancy has been noted?"

Precocious Pregnancy is the occurrence of gestation at an unusually tender age. One needs only to consult the interesting literature on the subject and he will be amazed, as was the writer, how early in life a female may be impregnated. The youngest age recorded in which pregnancy occurred was eight years. This case was reported by Tidy in the latter part of the nineteenth century.

An allied case is recorded of a seven pound baby being delivered from a mother but eight years and ten months old. Wharton and Stille report an instance of a baby menstruating in her first year and being delivered in her ninth year of a child weighing seven and three quarter pounds. There are many cases reported of girls from eleven to fourteen years of age giving birth to full sized children. Wilkinson records the case of a negro girl giving birth to twins when she was only thirteen years nine months and five days old.

Late Pregnancy Equally interesting as the above, are the cases recorded of late pregnancies. Halles records cases, one occurring at the age of seventy, and another at the age of sixty-three. Reese records the birth of twins in a woman of sixty-four. It is not very uncommon to hear of normal children being born of mothers in their sixth decade of life. This is possible in women in whom the normal menopause is indefinitely postponed, in which case they continue to menstruate, or menstruation may cease and yet ovulation may continue actively and independently of menstruation. In the very limited practical experience of the writer, one female patient whose history he was taking, claimed she was fifty-nine years old and she was still menstruating.

Therefore, it is a safe general rule to consider every female from eight to sixty years of age as either capable of becoming pregnant or capable of conceiving, even when other apparently impossible circumstances, aside from the question of age, may be present. There is a possibility of gestation even where there exists an imperforate or unruptured hymen. Sherwood-Dunn records the case of a woman from whom he removed both ovaries. She subsequently married, he states, and gave birth to a male child.

Impregnation During Unconsciousness "Is it possible for a woman to conceive while she is unconscious?" "How long can a woman be pregnant and yet be unaware of her true condition?" Such

questions may arise and the physician asked to explain.

It must be granted that intercourse during an unconscious state, the result of deep sleep, coma, hysteria, hypnotism, or from the administration of an anesthetic, is quite possible. If the woman be a virgin, the pain and traumatism to the parts, usually associated with the first coitus, should lead her to suspect the occurrence of events, immediately upon restoration to consciousness. If she is not a virgin, it is quite possible for the woman not to realize her true state during the first two or three months. In all events, the continued suppression of menstruation and the development of the pregnancy should lead any woman with ordinary intellect to suspect her true condition. Only in feeble minded women have such cases of unconscious gestation been recorded. In married women who conceive at or subsequent to the menopausal period, it is quite possible for her to ascribe her condition to some pathologic affection as an ovarian cyst or a fibroid, and thus allow gestation, to advance to near term without accurate knowledge on her part.

Diagnosis of Pregnancy in the Dead When an autopsy is done in cases of suspected pregnancy, as for the purpose of identification, the marks of gestation or delivery are to be found in the uterus, lower birth canal, and in the ovary. The investigation should include a microscopic examination of the uterine scrapings for the presence of decidual cells and chorionic villi which are only present in the pregnant or recently pregnant uterus. The finding of an ovum, embryo, fetus or fragments thereof as decidual cells, chorionic debris or bones, would indicate a pregnancy. The earlier the examination is made, the more conclusive would be the proof. If the embryo had advanced beyond the period of ossification before the death of the mother, bones may be recognized several years later. Moles, also if found are positive proof of gestation.

Delivery in the Living In cases where a woman presents a child as heir to a disputed estate, or in cases of feigned birth, or in cases of infanticide, the physician is often called in to determine whether the woman in question has upon her body the marks of a delivery that will correspond in date with the age of the child. Examinations in such cases must be done soon after the delivery has occurred, if any positive evidence is to be obtained. After the lapse of from eight to ten days, it is difficult, if not impossible, to make a positive statement that labor has occurred, especially in multipara. The tissues will have regained their usual condition in that time, as to present only the slight lesions that follow an abortion. In a case of infanticide, the woman could readily claim that her pregnancy terminated in an early abortion, and thus escape the penalty. In all such cases, it is important to make

who make it their business to follow them aren't the ones for successful practice"

Dr Leslie, although not wholly in accord with the impatience of these opinions, nevertheless expressed firmly his faith in the achievements of the practical men

"They go on, poor fellows, studying the symptoms and never taking it in that the life power is at fault I see more and more plainly that we ought to strengthen and balance the whole system, and to aid nature to make a sick man well again It is nature that does it after all, and diseases are oftener effects of illness than causes But the young practitioners must follow the text-books a while until they have had enough experience to open their eyes to observe and have learned to think for themselves I don't know which is worse too much routine, or no study at all I was trying the other day to count up the different treatments of pneumonia that have been in fashion in our day, there must be seven or eight, and I am only afraid the next thing will be a sort of skepticism and contempt of remedies Dr Johnson said long ago that physicians were a class of men who put bodies of which they knew little into bodies of which they knew less, but certainly this isn't the fault of the medicines altogether, you and I know well enough they are often most stupidly used If we blindly follow the medical dictators, as you call them, and spend our treatment on the effects instead of the causes, what success can we expect? We do want more suggestions from the men at work, but I suppose it is the same with every business The practical men are the juries who settle all the theories of the hour, as they meet emergencies day after day"

As for urban practice, he said

"It is astonishing how little some of the city doctors knew, they relied upon each other too much They should all be forced to drive over hill and dale, and be knocked about in a hard country practice for eight or ten years before they went to town"

In regard to the contributions of active physicians to medical literature, he made a significant observation

"We haven't time to do any writing That is why our books amount to so little for the most part The active men, who are really to be depended upon as practitioners, are kept so busy that they are too tired to use the separate gift for writing, even if they possess it, which many do not And the literary doctors the medical scholars, are a different class, who have not had the experience which alone can make their advice reliable I mean of course in practical matters, not anatomy and physiology But we have to work our way, and depend upon ourselves we country doctors, to whom a consultation is more or less a downright of pride Whenever I hear that an old doctor is dead I sigh to think what treasures of wisdom

are lost instead of being added to the general fund That was one advantage of putting the young men with the elder practitioners many valuable suggestions were handed down in that way"

He himself had acted as tutor to the embryo doctor, in the earlier years of his work, but of late had ceased to do so For the present, however, his instruction was concentrated on an aspiring female physician, whom he had adopted as an infant, and who for years had accompanied him on his rounds

"He patiently taught this eager young scholar day by day, and gave her, as fast as he could, the benefit of the wisdom which he had gained through faithful devotion to his business and the persistent study of many years Nan followed step by step, and while becoming more conscious of her own ignorance and of the uncertainties and of the laws of the practice of medicine with every week's study, knew better and better that it is resource, and bravery, and being able to think for one's self, that makes a physician worth anything There must be an instinct that recognizes a disease, and suggests its remedy, as much as an instinct that finds the right notes and harmonies for a composer of music Men and women may learn from others, but there is something needed beside even drill and experience, every student of medicine should be fitted by nature with a power of insight, a gift for his business, for knowing what is the right thing to do, and the right time to do it, must have this God-given power in his own nature of using and discovering the resources of medicine without constant reliance upon the books or the fashion. The great doctor works for the body's health, and tries to keep human beings free from the failures that come from neglect and ignorance, and ready to be the soul's instrument of action and service in this world It is not to keep us from death, it is no superstitious avoidance of the next life, that should call loudest for the physician's skill, but the necessity of teaching and remedying the inferior bodies which have come to us through either our ancestor's foolishness or our own So few people know even what true and complete physical life is, much less anything of the spiritual existence that is already possible, and so few listen to what the best doctors are trying their best to teach While half-alive people think it no wrong to bring into the world human beings with even less vitality than themselves, and take no pains to keep even the simplest laws of health, or to teach their children to do so, just so long there will be plenty of sorrow of an avoidable kind, and thousands of ship-wrecked, and failing, and inadequate, and useless lives in the fullest sense of the word How can those who preach to the soul hope to be heard by those who do not even make the best of their bodies?"

Dr Leslie was hesitant about experimenting with new remedies, and scorned to adopt a treatment simply because it was in vogue at the prevail-

JEWETT'S "COUNTRY DOCTOR"

By LOUIS J BRAGMAN, M.D., SYRACUSE, N. Y.

SARAH ORNE JEWETT was the daughter of a New England physician, Theodore H. Jewett, by whom she was remarkably influenced in her literary career, and upon whose life and character she had greatly drawn for her notable novel, "A Country Doctor." Written in 1884, this story, with the provincial physician as the leading figure, tells in a quiet, pastoral-like fashion the various incidents that take place in the community about the town of Oldfields. The shrewd delineation of the doctor, with the interesting side-remarks pertinent to the medical profession in the late years of the nineteenth century, serve to make the work of distinct historical value.

One is immediately impressed with the sympathetic and warm description of the doctor, as he hastens to the bedside of a dying woman.

"They all listened eagerly for the sound of wheels, but it seemed a long time before Martin Dyer returned with the doctor. He had been met just as he was coming in from the other direction, and the two men had only paused while the tired horse was made comfortable, and a sleepy boy despatched with the medicine for which he had long been waiting. The doctor's housekeeper had besought him to wait long enough to eat the supper which she had kept waiting, but he laughed at her and shook his head gravely, as if he already understood that there should be no delay. When he was fairly inside the Thatcher kitchen, the benefaction of his presence was felt by everyone. It was most touching to see the patient's face lose its worried look, and grow quiet and comfortable as if here were someone on whom she could entirely depend. The doctor's greeting was an every-day cheerful response to the women's welcome, and he stood for a minute warming his hands at the fire as if he had come upon a commonplace errand. There was something singularly self-reliant and composed about him, one felt that he was the wielder of great powers over the enemies, disease and pain, and that his brave hazel eyes showed a rare thoughtfulness and foresight. The rough driving coat which he had thrown off revealed a slender figure with the bowed shoulders of an untiring scholar. His head was finely set and scholarly, and there was that about him which gave certainty, not only of his sagacity and skill, but of his true manhood, his mastery of self. Not only in this farmhouse kitchen, but wherever one might place him, he instinctively took command, while from his great knowledge of human nature he could understand and help many of his patients whose ailments were not wholly physical."

As if to offer an apology (although none were needed) for such a splendid and capable medical man remaining contentedly in a rural community, the author recited a few facts from his early career:

"Dr. Leslie had somewhat unwillingly undertaken the country practice which had grown dearer to him with every year, but there were family reasons why he had decided to stay in Oldfields for a few months at least, and though it was not long before he was left alone, not only by the father and mother whose only child he was, but by his wife and child, he felt less and less inclination to break the old ties and transplant himself to some more prominent position of the medical world. The leisure he often had at certain seasons of the year was spent in the studies which always delighted him, and little by little he gained great repute among his professional brethren. He was a scholar and thinker in other than medical philosophies, and most persons who knew anything of him thought it a pity that he should be burying himself alive, as they were pleased to term his devotion to provincial life."

Dr. Ferris, once his class-mate, had stopped in his wanderings as a naval surgeon long enough to pay his old friend a visit. In his conversation with Dr. Leslie touching the diversity of types of physicians, he remarked:

"It always makes me covet my neighbor's wits when I see you. If I settled myself into a respectable practice I should be obliged to march with the army of doctors who carry a great array of small weapons, and who find out what is the matter with their patients after all sorts of experiments and painstaking analysis, and comparing the results of their thermometers and microscopes with scientific books of reference. After I have done all that, you know, if I have had good luck, I shall come to exactly what you can say before you have been with a sick man five minutes. You have the true gift for doctoring, you need no medical dictator, and whatever you study and whatever comes to you in the way of instruction simply ministers to your intuition. It grows to be a wonderful second-sight in such a man as you. I don't believe you investigate a case and treat it as a botanist does a strange flower, once a month. You know without telling yourself what the matter is, and what the special difference is, and the relative dangers of this case and one apparently just like it across the street, and you could do this before you were out of the hospital. It's all very well for the rest of the men to be proud of their book-learning, but they don't even try to follow nature, as Sydenham did, who followed no man. A man has no right to be a doctor if he doesn't simply make everything bend to his work of getting sick people well, and of trying to remedy the failures of strength that come from misuse or inheritance or ignorance. The anatomists and the pathologists have their place, but we must look to the living to learn the laws of life, not to the dead. The men who make it their business to write the books and the men

REDUCING THE COST OF SYPHILIS IN INDUSTRY

(REPORT OF 176 CASES)

By WILLIAM ALFRED SAWYER, M.D., and BENJAMIN J SLATER, M.D.,
EASTMAN KODAK COMPANY, ROCHESTER, N.Y.

SIR WILLIAM OSLER has said that if physicians know syphilis in all its manifestations, all things clinical will be added to them. Thus inspiring invitation from such a great master should act as a challenge to all physicians working in industry. Industry offers a rich field for the study of syphilis, for it is here that an opportunity is given to study the individual from day to day and from year to year in relation to his daily work. Viewed from the public health point of view there need be no arguments advanced in favor of this type of endeavor. The reasons are altogether too obvious. In the 176 cases, a resume of which is herewith presented, syphilis is represented in a great many of its manifestations from the primary to the tertiary lesion.

During the last three years we have taken bloods for Wasserman reactions, as follows

1923	932
1924	1237
1925	1278
	<hr/>
	3447

Between $3\frac{1}{2}$ and 4 per cent of bloods taken are positive. Usually bloods which are at first reported as faintly suspicious to cholesterin, later become positive.

In the course of taking the blood for this number of Wassermans, a technique was evolved which seemed to have certain merits. The nurse was placed in front of the extended arm so that the patient does not see the withdrawn blood.

If the patient has any objection to the removal of blood it is not done. As a matter of fact such objections are almost never encountered. The Wasserman reaction was obtained in every accident no matter how trivial, and as many as seems practicable are taken in disease conditions. While the number taken in one day is frequently not large, when carried on year after year the total number comes to represent a survey of almost 60 per cent of the older employees.

Even though the total number of blood specimens taken is relatively large, we have had no accidents and there has been practically no complaints directed at this type of service.

Dr W. E. Menninger* in the *American Journal of Syphilis*, Vol. 9, No. 3, July, 1925, has shown that in 72 per cent of his syphilitics there was difficulty in wound healing following operation. Practically all standard books

on surgery recognize that syphilis is an additional hazard in operations.

The following cases illustrate the practicability of discovering syphilis and its application to industry. While it will be noted that many employees claim that their disease came because of some condition connected with the work, there is not an instance where an employee claimed that he contracted the disease from another employee. In other words, in the 176 cases there is no claim on the part of any employee that he was infected by another.

A female employee struck the back of her hand against a machine. This did not yield to ordinary treatment, the pain continued for over one month, and the patient was dissatisfied. Another employee was struck with the handle of a truck in the left groin, it broke down, discharging pus, and there was general enlargement of other nodes besides those struck, the case dragged along for some time without a cure. Another employee fell, striking his knee, six months later he developed soreness, tenderness, and some swelling in the knee, which conditions he traced to the preceding fall, claiming compensation. A woman claimed that a furuncle in the groin was the result of a fall. Three employees complained of back injuries with prolonged residual pain. Nine had infections of the fingers, five of which were almost impossible to heal. Four claimed that their skin was being poisoned by conditions of their work, each had a macular eruption on the forehead and felt that it came from chemicals. There were four others who had leg ulcers, claiming injury by striking against objects. One employee believed that chemicals were causing him to lose his vision in one eye. In two months his vision had dropped from 20-20 to 20-200 in one eye.

In each of these twenty-five cases, the Wasserman was four plus, and anti-syphilitic treatment cleared up the condition. The compensation aspect of the case was forgotten when a cure was effected. What the saving was financially is difficult to say, but we know it must have been great when we consider that the award for one eye is \$4,000. Certainly the protection which has been effected in every case more than compensate for the cost of this service. With this in mind, it would seem that the best way to avoid complications of injuries is to anticipate them.

To those industries which pay for absence because of sickness as well as accident compensation, this work becomes of added inter-

ing moment Thus he protested sternly against "the haphazard way of doctoring, in which the health of the patient was secondary to the promotion of new theories" And he was somewhat put out by the fact that "the young scholar who could write a puzzling technical paper too often outranked the old practitioner who conquered some malignant disorder single-handed, where even the malpractice of the patient and his friends had stood like a lion in the way"

None the less he was not afraid of new ideas, and always held out a welcome hand to those progressive minds of the younger generation As an index of his willingness to cooperate, he instanced the many new publications which he was constantly adding to his subscription list And he was extremely proud of the "long rows of his dear library acquaintances, his Braithwaites and Lancets, and their younger brothers, beside the first new Sydenham Society's books, with their clumsy blot of gilding And he would stand sometimes with his hands behind him and look at the many familiar rows of brown, leather-covered volumes, most of them delightfully worn with his own use and that of the other physicians, whose generous friend and constant instructor he had been through years of sometimes stormy but usually friendly intercourse and association"

After his fair apprentice had made sufficient headway to be reliable, he felt inclined, he said,

to open an office in town, and specialize in heart diseases, "since everybody had a specialty nowadays" The modern conception of *ours* being the age of over-specialization is here revealed as being somewhat out-dated!

One glimpses in the following paragraph a worshipping daughter ennobling a doctor of medicine

"If clergymen knew their congregations as well as physicians do, their sermons would be often more closely related to the parish needs Nobody sees people as they are and finds the chance to help poor humanity as a doctor does The decorations and deceptions of character must fall away before the great realities of pain and death The secrets of many hearts and homes must be told to this confessor, and sadder ailments than the textbooks name are brought to be healed by the beloved physicians Teachers of truth and givers of the laws of life, priests and ministers—all these professions are joined in one with the gift of healing, and are each part of the charge that a good doctor holds in his keeping"

Has the true worth and the grave sense of responsibility fostered in the heart of the ideal physician ever been more accurately epitomized? No doctor, cherishing the love of his profession, can afford to overlook this masterful story by Sarah Orne Jewett

HOW TO GET A DOCTOR AT ANY TIME

The July issue of the Ohio State Medical Journal contains the following editorial

"The City Health Department in Dayton, through Dr A O Peters, health commissioner, has undertaken a publicity campaign to acquaint people 'How to Get a Doctor Any Time,' regardless of the financial status of the patient, or ability to pay a fee

The remedy is as simple as the problem sounds complicated In brief, it is for every family and every adult to establish relations with a physician

In large cities the persons unable to pay have district physicians available Those able to pay, if they have a family doctor, receive prompt attention, for the physician has a sense of responsibility toward the patient

"In the days when everyone had a family physician," a current bulletin from Dayton states, "there was no complaint about the lack of prompt attention Then came the time when the laity caused the abandonment of the old time relationship between doctor and fam-

ily by running promiscuously to different physicians, including specialists, without the guiding advice of one doctor who feels responsible for the conduct of the case This practice has forfeited to the people the old time feeling of responsibility which the family doctor had The new way may be better, it may be that people get better diagnosis and better treatment, but there is no doubt that in fostering this idea of decentralization in professional relationship, much has been lost by the patient in forfeiting the personal interest of the physician which the patient formerly enjoyed

"The few people who still employ a family doctor receive prompt attention even when their own doctor may not be immediately available For these persons, there are always a number of physicians who "swap calls" so that when the regular doctor cannot be reached one of the others is glad to act temporarily It is only the people who have no such relationship with a physician who have trouble getting service"

pensaries, but refer the individual to his own physician, to a specialist, or to a clinic. There is a syphilis register, and a case is followed from year to year. Without this register, and without this follow-up treatment, who can say what these cases would have cost industry in complications if treatment had not been instituted?

It is not our policy to discharge a man who has syphilis. If such were the case, it would soon become impossible to get the Wasserman reaction of anybody. There is the greatest effort at cooperation, and every assistance and encouragement is given the employee to get treatment as quickly and as reasonably as his financial condition will permit. The public clinics in the city have proved a great help in this work.

That the patient frequently does not realize the value of this type of service is shown by the fact that 18 employees quit within three months rather than submit to the follow-up. Six others never reported for work at all. In other words, out of 176 cases, 24 or 13 per cent preferred no treatment at all, and left rather than be reminded that treatment was necessary. The turn-over in syphilis is tremendous under the best of circumstances. One wonders what the future will be in eradicating this disease when such a large percentage will not take treatment at a price which hardly covers the cost of the medicine. Of those discovered, not over 15 per cent had previously received anything like adequate treatment or follow-up.

If, however, all physicians in industry will tackle this problem earnestly, there is little doubt that great progress will be made. The Wasserman reaction will be popularized in the family as well as with the patient. More cases will be taken care of, and may there not grad-

ually develop a changed attitude on the part of employees in reporting it. Constant hammering will bring results. Industrial medicine offers an unusual opportunity to discover the disease, and above all, the follow-up becomes relatively easy when the patient remains in the company's employment.

In those communities in which there are no public clinics and no adequate facilities to adjust charges to the financial condition of the patient, it is the authors' feeling that a clinic could be established in the company at no great expense. The results, it is believed, would pay for any cost which would be attached to this type of service.

SUMMARY

1 It is possible with a proper technique to get many Wasserman reactions in industry with comparative ease.

2 Early treatment of syphilis is the best preventive of complications following accidents, and periods of disability are thus cut down. There is a reduction in sick benefit payments for the same cause.

3 A perfect follow-up system is possible as long as the employee continues his employment.

4 The work has three aspects. It is a protection to the individual, to public health, and to industry.

5 Blood was taken from 347 individuals. Between $3\frac{1}{2}$ and 4 per cent gave positive reactions.

6 Syphilis is costly to industry and the State and the taking of more bloods will help greatly in reducing the incidence of syphilis in the community.

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RESPONSIBILITY FOR THE EFFECTS OF SEVERE THYROIDISM

By FRANK H. LAHEY, M.D., BOSTON, MASS.

ONE dealing with toxic goitre in limited numbers is not likely to be impressed with the possible seriousness of the disease, both from the point of view of death and also that of permanent and disabling effects. Where, however, the cases of this condition are seen in large numbers one cannot fail to realize, first that a very definite number of patients reach such extreme straights in this disease that death results before any operative treatment, or for that matter any form of treatment is possible, and too, that even though death does not follow, such degrees of car-

diac crippling may result from the effects of this disease that either life itself is immediately threatened by the decompensation ensuing or the individual is converted by the decompensation, plus thyroidism, into such a state, that the necessary measures undertaken for the relief of this condition are made extremely hazardous.

In proof of the above two statements, as to possible serious outcome in hyperthyroidism, in this clinic during the years 1921-22 and 23 there were more patients with toxic goitre who died before they could be operated upon than died after they

est. Ordinarily there is more money paid out in sick benefits than in accident compensation. It is here that our diagnosis is of assistance to the patient in securing proper treatment, and the Company is saved a great deal in sick benefit.

For example, one employee asked for a three-months' sick leave, planning to change climate. This ordinarily would have been given with pay. The Wasserman reaction was found to be four plus. After receiving treatment at a public clinic the improvement was so marked that a sick leave was no longer thought necessary.

One employee in 1924, for the first six months, lost 517 hours. After treatment in the last six months of the year, he lost 192 hours, and in 1925 he lost 50 hours. Another employee lost 203 hours in 1922, 203 hours in 1923, after treatment in 1924, he lost 12 hours, and in 1925 he lost 30 hours. Without treatment the tendency, of course, would be to lose more and more time every year. The saving in sick benefits is obvious.

Many other illustrations could be given of employees who were absent because of this disease. The list is so long that only classical examples may be cited. The value from the patients' point of view can, of course, not be estimated in terms of dollars and cents. Such benefits must necessarily greatly exceed any financial considerations which enter into a discussion of this series of cases.

Forty-nine who had lost time because of sickness had a Wasserman reaction taken on return to work. This had not been done by the family physician. In every case it was positive. This shows the value of the examination after a period of sickness, also how much may be overlooked by failure to take the Wasserman.

Of the 176 cases, 28 were discovered on preliminary physical examination. Of these, 6 never reported for work. Here is an illustration of the value of physical examinations.

Summarizing, these 176 cases were discovered as follows:

- 30—After an accident
- 49—After illness
- 28—On physical examination
- 69—As the result of other conditions

Clinically, we had one primary lesion of the lip proved by the Wasserman and darkfield examination. We had three cases of secondary, and the remainder were of the latent or tertiary states. One case had gross swelling of the lymphatic cervical chain resembling a sarcoma. It promptly melted away under anti-syphilitic treatment. Two cases had tertiary gummas of the nose. One of these had a curious complex—he persisted in sounding the fire alarm,

as the resulting confusion stimulated his unbalanced imagination. He was also very forgetful. He returned to normal following treatment, and has continued to work since.

From an industrial point of view there is no symptom which is more difficult to handle than syphilitic asthenia. In many of these cases it was very difficult to get these employees to take treatment. Their whole attitude was characterized by a great indifference to everything. Promises made were frequently not kept. One man who had five children would sit by the fire entirely indifferent to the state of his family needs. There is no doubt that the *spirochaeta pallida* takes away the energy of many workmen, and from useful citizens they come to lead a vegetative type of existence which is incompatible with industrial efficiency. The whole picture of a syphilitic asthenia is that of an individual who is entirely insensitive to his own, his family, or industrial needs.

The sexes were divided as follows:

Married males	97
Single males	48
Married females	20
Single females	11

Of the married males, only five could be persuaded to bring their wives for a Wasserman test. Of these five, two were negative and three were positive. Curiously enough, the wives did not take enough interest to want to know if they had the disease, for it is certain that most of them knew that their husbands were under treatment. Of the 11 unmarried women one was married three days after the fourth dose of salvarsan.

Treatment followed the nuptials, and she later gave birth to a healthy child.

One case committed suicide. Four became insane. One died of uraemia following a drunken debauch.

As to previous treatment:

- 37 had had treatment
- 139 had never had treatment

Two had been treated in the English Army, one in Constantinople, another in Buenos Aires, two in Edinburgh, one in Naples, and another in Hamburg, Germany, one was treated early in a public dispensary. Only nine were actually receiving treatment at the time we made the discovery. It is believed that five were hereditary. From the public health point of view, this shows how inadequate the follow-up is in the ordinary case of syphilis.

Each of our employees who is known to have syphilis is now receiving treatment. We do not give such treatment at our dis-

EDITORIALS

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For list of officers of County Medical Societies see July 15 JOURNAL, advertising page xiii

THE DIRECTORY

* Copy for the 1926 Medical Directory of New York, New Jersey and Connecticut is now being set by the printer, and if any changes are necessary, they must be made in the very near future.

The new directory will contain the same features as the 1925 edition, but the number of changes is surprisingly great. Over one-third of the physicians listed wish to have changes made in their addresses, or office hours, or telephones, and 500 new names will be added.

The final decision on all data is based on the replies from the doctors themselves. Personal letters were sent to all known doctors in the three states last spring, and follow-up letters have been mailed to those who have not replied. If anyone is not properly listed, the overwhelming probability is that the omission lies with the doctor.

Return your reply card at once.

THE PRACTICE OF PREVENTIVE MEDICINE

Physicians are generally fairly well equipped to recognize fully developed diseases and to treat them after they have been diagnosed. But the stage when a diagnosis is possible has been advanced earlier and earlier in the course of a sickness until now the general character of a disorder may be recognized in its very incipency. A diagnosis implies the immediate establishment of an appropriate line of treatment. Dr Samuel Lambert's definition of diagnosis is peculiarly appropriate: "Diagnosis is a working hypothesis for the application of therapeutics, subject to change without notice on the discovery of further evidence."

Certain combinations of signs and symptoms are associated with each disease. All the signs and symptoms need not be present, but the skilled diagnostician, like the expert mariner, can obtain accurate knowledge from a fleeting glimpse of an abnormal manifestation. It is the detection of the slightly unusual or abnormal that constitutes expertness in the recognition of a disease.

The time to begin specific therapeutics is when a tentative diagnosis is first made. A suspected condition is an invitation to begin treatment immediately, and also to take immediate steps to obtain further evidence regarding the condition, taking a laboratory specimen, making a physical examination, obtaining an accurate history, and all other procedures that may throw light on the condition, but in the meantime measures directed to the suspected condition are to be carried out.

Doctors sometimes assume two opposing attitudes toward early diagnosis and therapeutics. One group, deluded by their own fears, sit still and do nothing except to "wait and see what happens." They fear to take specimens and to make examinations, but they win the praise of their patients by their much solicitude and their protestations of Nature's slowness in "localizing the abscess," or "solidifying the lungs," or in some other way writing the name of the disease in big letters all

over the body. These doctors do not practice the preventive form of medicine.

The opposite attitude is that of the doctor who tells every patient that he is "threatened" with some dire disease. He gives his patient some pills and potions to be taken alternately every half hour, and Lo! in a day or two the disease is averted and the rescued patient is grateful for his deliverance. This sounds like preventive medicine, but it is only its quack imitation.

The practice of real preventive medicine consists in following up the signs and symptoms, be they few or many, evident or obscure. A patient, for example, has one attack of hematuria. The physician who practices preventive medicine will visualize the possible sources of the blood from the prostate to the kidney, and will insist on urine analyses, cystoscopic examinations, and X-ray pictures. Yet it frequently happens that nothing is found and that the signs and symptoms disappear, to the delight of the "wait and see" doctor.

What should a doctor do in a case like this? A patient has a superficial infection of the palms of both hands with some pus, soreness, and throbbing, and then develops a superficial abscess on the skin of his upper arm and a tonsillitis. Is the tonsillitis a part of a mild general septicemia? Are cultures of the blood and throat indicated? Should the administration of serum be seriously considered? All these procedures are demanded as preventive measures.

The practice of preventive medicine by the general practitioner consists largely in diagnosing and treating clinical sickness in its early stage.

The time is now ripe to extend the practice of preventive medicine to include the diagnosis and treatment of disease in its preclinical stage before the patient is aware of the abnormality. This practice constitutes the periodic health examination.

CASE HISTORIES

The written case history in a hospital reflects the impressions of the physician and the methods which he applies to the case. The physician records those conditions which he consciously has in mind during his management of the case.

The absence of a record of essential conditions may mean one of two things—either the doctor forgot to consider the condition, or he did consider it, but found it negative. In the

absence of a record the assumption is that the doctor did not consider the condition at all.

There are no limits to the number of conditions which may be recorded on a history sheet. Great details of family history, repeated analyses of the blood and urine, and detailed examinations of organs remote from the seat of trouble, may confuse rather than aid the diagnostician.

The object of a history is two fold. The immediate object is the diagnosis of the case and the treatment of the patient. The secondary object of a history is to provide facilities for studying a series of cases and comparing one line of treatment with another.

It is to be presumed that the methods practiced in a hospital represent modern standards. They are neither the ultra modern methods of the research worker and specialist, nor the antiquated methods of a decade ago. The methods used in ordinary hospitals are simply those which have been proved useful by modern experience.

Appointment on the visiting staff of a hospital carries the presumption that the doctor will make all the ordinary kinds of examinations that are indicated in the condition that is suspected. As soon as a case is admitted, a tentative diagnosis is made either consciously or unconsciously, and on it is based the next steps of examination and treatment. Every group of symptoms suggests a possible source of trouble and points to a certain organ or region that is involved. An immediate general examination still further fixes the suspicion on a definite part and excludes others from suspicion. Later a detailed examination and study leads to further exactness in diagnosis and treatment.

When a first class diagnostician is confronted with a group of symptoms and signs, he at once forms a mental picture of the probable development of the pathological condition and of its future progress, and the history which he writes will contain the points which he consciously has in mind. If he does not make written records of what he actually sees and hears, he will soon forget even those points which he consciously has had in mind.

A doctor's progress in skill in the practice of medicine is reflected in his histories. If at the end of five years' experience a doctor writes no better histories than before, that doctor is still practicing only the medicine that he knew five years ago. He has not contributed the general

store of medical knowledge or helped his brother physicians to make accurate diagnoses. Every hospital, large or small, can not only assist its staff to practice scientific medicine, but it can also add to the sum of medical knowledge. Take the subject of obstetrics, the leading obstetricians prove the efficiency of their standards of practice by means of accurate records of their cases. Almost the only available records with which they may compare their work are those of other experts who command the facilities of special hospitals. There is a great need that small general hospitals should make their obstetrical records available to the experts. It would be exceedingly instructive if a small rural hospital, staffed by general practitioners, should tabulate its records of 100 or 500 obstetrical cases for comparison with those of the specialists.

Progress in medical practice is measured in two ways. 1, by the records of research institutions and hospitals, 2, by the extent of the adoption of the standards by general practitioners. Items of medical progress originate in centers and spread through the great body of physicians with a speed that is in direct proportion to the closeness of contact of the doctors. The centers are crowded together in research laboratories, they are sprinkled through the hospitals, and often are found scattered among general practitioners. Yet doctors in private practice and serving on the staff of general hospitals have the opportunity to do original work and to contribute to the sum of medical knowledge.

It is not to be expected that all doctors will have the inclination or ability or time to tabulate and summarize the records of cases in a hospital, but it is reasonable to expect that they should write histories in hospitals which provide history clerks and all other facilities for the easy making of complete records.

A physician absorbs knowledge from others in direct proportion to his activity in recording his own observations. The best stimulus to medical progress is activity in making records of one's own cases.

BOOTLEG MILK

The recent disclosures of milk frauds within the Department of Health of New York City suggest the probability of an extension of the system to districts outside of the city. However, there is this difference: there is no need of the payment of graft money in the outlying districts because the system of inspection and control is far inferior to that in New York City. The system in New York City is so efficient that inferior milk will be detected and excluded unless the inspectors are corrupted. On the other hand, in border-

ing counties, where no county-wide system of milk control exists, but where there are over sixty uncoordinated health districts, milk dealers can sell milk of any grade with impunity. The result is that the rural section receives milk which cannot be sold in the city. If a health officer takes action good milk will be sent into his district until the stir blows over.

Milk which cannot conform to the low standards of rural districts and that is on the verge of spoiling or souring, can still be sold to the proprietors of small one-man ice cream

stores where "home made" ice cream is dispensed. The managers of dairy routes sometimes show almost childish ignorance in their frank statements. Some dealers have said that the Grade A pasteurized milk which was too old to sell over the counter was poured into cans and sold to small manufacturers of ice cream. There is no system of inspection of small ice cream makers.

Rockland County has an efficient system of inspection control on a county-wide basis. Samples of milk are taken at frequent intervals and examined in the county laboratory, and the counts are made public records. The Rockland County system is to be recommended to all rural counties.

Local health officers have no facilities for tracing the origin of milk that is imported from up-State or from other states, that duty should be performed by the State authorities. A large dealer who sells milk in several municipalities should file a set of scorings with the State Department of Health where it can be had by the local health officers.

This importation of uninspected milk is a new development that requires intensive study, and the cooperation of all the health forces of a community.

The County Medical Society can collect data, give publicity to the standards of wholesome milk, and advise the officials regarding their

duty, and especially they can support the local health officers and boards of health in controlling milk supplies.

Local health officers can at least make reports regarding milk conditions in their districts, and specific recommendations for improvements. Even if their recommendations are ignored, the fact that they have made written reports and recommendations relieves them of the charge of inaction and unconcern.

Local committees on tuberculosis and public health can carry on a campaign of educating the public regarding local conditions and the methods of remedying them.

The Department of Health of New York State can assist the local health officers in securing information, and can stimulate the activities of those who are inclined to be indifferent.

The Health Department of New York City, which is having troubles of its own with bootleg milkmen, has always been willing to assist the rural health officers in their efforts to control milk supplies.

Bootlegging in milk, like that in other lines, flourishes because the indifference of the people is reflected in the actions of local officials. County medical societies have the opportunity to practice civic medicine by arousing public interest in the problem of the purity of milk supplies.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

The New York State Journal of Medicine for August, 1906, contained an account of a meeting of the Society of Sanitary and Moral Prophylaxis held in the New York Academy of Medicine on April 12, 1906. The meeting was on the subject of the education of the public regarding venereal diseases. The chairman, Dr. Prince A. Morrow, in introducing the subject, said:

"The education of the public in sexual matters constitutes a new departure, and it is first necessary to study the situation thoroughly and determine upon the best means to follow. In the education of the general public we have to encounter and overcome the fact that the general public is indifferent and in certain quarters, actively hostile. Then the ordinary means of communication with the public are not available. The newspapers and magazines, which have been such powerful agencies in the enlightenment of the public in regard to

tuberculosis, are closed to the importance of the work of this society."

Legal measures of prevention were discussed by Arthur N. Taylor, Esq., of New York. He said, "I could suggest an act requiring physicians to immediately report and segregate cases of venereal disease coming to their treatment, as they are required to do with many other contagious diseases, but it requires no vivid imagination to conceive that such an act, if it were enforced, would drive most patients to the "cure yourself" method, thus greatly aggravating the harm it was enacted to lessen."

It is gratifying that this fear has been groundless, and that the accepted rule is that venereal diseases shall be reported along with such diseases as measles and smallpox.

The August, 1906, JOURNAL is valuable as a record of the beginning of the work of preventing venereal diseases.



MEDICAL PROGRESS



Some Medical Aspects of Gastroduodenal Ulcer — Anthony Bassler (*Therapeutic Gazette*, June 15, 1926, 1, 6) states that without doubt the majority of instances of frank hemorrhage from the stomach are other than ulcer cases. They should be considered medical at the start and handled conservatively, by rest of body, mind, and circulation, for which morphine is best. The patient is kept warm, abstains from food for twenty-four hours, then takes acid gelatin water, and after a few days fluid diet like that for ulcer. The stomach is washed with ice-water and one or two drams of adrenalin solution instilled. The final treatment depends upon the cause of the bleeding. The diagnosis of acute perforations in the upper abdomen has changed markedly for the better, few cases will be missed if the condition is kept in mind. In the diagnosis of duodenal ulcer too many men depend upon the Einhorn string test, this the writer has not employed for the past three years. The diagnosis of ulcer by the x-rays alone is not an entirely safe clinical procedure, but there are three deductions from the r-ray diagnosis of ulcer than can often be made. When the x-ray report was that of ulcer and characteristic symptoms were present, ulcer was generally found, if the classical symptoms were present and the x-ray was negative, ulcer was usually found, but if the symptoms were absent and the x-ray diagnosis was ulcer, the r-ray was wrong in more than half of the instances. This means that history and symptoms are the most valuable factors in the diagnosis of this condition. The factor of greatest weight in the history of ulcer is periodicity. A comparison of results by various methods of medical treatment proves that older methods were more generally comfortable and required fewer shifts and daily modifications than those of today. The results of the fatty types of diet do not warrant the weathering of the distress they occasion to the patient. The type of diet—Von Leube, Lenhartz, Sippy, Coleman—employed does not make much difference in the results. The only essential is small quantities of highly nourishing bland foods, frequently repeated for the first three or four weeks while the patient is in bed. The best part of the work is done after the patient leaves his bed, when for the first month he should be back on first principles—milk, eggs, cereals, bread and butter (3,500 calories a day). At the end of each month additions to the diet are made. Alkalies must be administered in quality and kind according to the stomach and

body of the individual patient. Most patients come out of the Sippy treatment with more or less toxemia. Tests of stomach acidity indicate how much alkali is needed. Such tests can be made at any time by using a piece of surgeon's silk, the lower end of which is stained with Congo red and contained in a gelatin capsule, which the patient swallows. Bassler finds that calcium carbonate and magnesium oxide are the best alkalies, and should be continued throughout the six months' dieting. If one medical treatment, well done, does not cure, there is no use trying a second. Ulcers of the fundus, body, and anterior wall do comparatively better on medical treatment than those of the posterior wall and lesser curvature. The larger and more indurated the ulcer is, wherever situated, the wiser is a resort to surgery.

Diagnosis of Peptic Ulcer—Cecil Bull (*Practitioner*, June, 1926, cxvi, 6) declares that gastric and duodenal ulcer can be, and should be, diagnosed accurately and definitely in nine out of ten cases. Pre-operative diagnosis is safer, more accurate, and more economical than exploratory operation and under no circumstances are we ever justified in advising or consenting to an operation on a patient with chronic abdominal symptoms unless a careful diagnosis and localization of the lesion have been made beforehand. The diagnosis is made on the history, the physical examination, and the r-ray examination. Every case of peptic ulcer can be made to exhibit Sippy's five clinical characteristics: (1) pain or discomfort in from one half to four hours after a meal, (2) relief for a similar period by a full meal, (3) relief by an adequate (neutralizing) quantity of alkali, (4) relief by completely emptying the stomach, (5) increase of gastric acidity (qualitatively and quantitatively) during the height of pain. A special characteristic of peptic ulcer is the tendency to remit and relapse. Some abdominal discomfort with peptic ulcer is invariable. Mineral acids excite pain. Sugar and alcohol give temporary relief. In gastric ulcer the facts are there just the same but the time occupied in the sequence of events is shorter. The physical evidence is (1) visible peristalsis, (2) palpable abdominal tumor. In both cases these signs will be confirmed by the r-rays. Local tenderness is by no means diagnostic of ulcer. An r-ray examination is the most important single method of examination. The direct signs of gastric ulcer are (1) niche, (2) accessory pocket

The indirect signs are (1) spastic manifestation—incisura, diffuse gastric spasm, (2) retention from a six-hour meal (a barium meal given six hours before examination), (3) alterations of peristalsis. The direct signs of duodenal ulcer are (1) deformity of the duodenal cap, (2) duodenal diverticulum. The indirect signs are (1) hyperperistalsis, (2) retention from a six hour meal. By these signs Carman obtains accuracy in diagnosis in over 95 per cent of cases of gastric and duodenal ulcer. All the data obtained from the history, the physical examination, and the x-ray examination must agree and fit in the picture before a positive diagnosis of peptic ulcer can be made. For instance a patient with gastric symptoms and deformity of the duodenum, as shown by the x-rays, may or may not have duodenal ulcer, he may have had a duodenal ulcer years ago, which had healed, but left a permanent deformity.

Treatment of Gastric and Duodenal Ulcer—Von Eiselsberg writes that he has treated nearly 1700 cases of peptic ulcer and post-ulcerous stenosis during the past quarter century, with an operative mortality of 7 per cent. This figure does not apply to recent years for in his past series of 449 resections his mortality was but 3 per cent, and he is so confident that this percentage can be reduced progressively that he speaks of it as "3 per cent too many." He begins his article in the *Wiener klinische Wochenschrift* of June 17, 1926, with an attempt to solve the mystery of the etiology of peptic ulcer, but although he cites a number of plausible theories he ends by confessing his total ignorance. He passes hastily over the subject of diagnosis which is now well crystallized. In discussing the roentgen diagnosis he states that the number of his cases of suspected peptic ulcer diagnosed in this manner is now 449 with but 3 per cent of error. He outlines the evolution of the surgical treatment of ulcer, much of which took place under his personal observation. Thus Billroth regarded resection as justifiable only for cancer at first, but later added ulcer stenosis. Then gastroenterostomy was found to do well for the latter and at a later period florid ulcer without stenosis was added. Gradually, however, the pendulum has been swinging away from anastomosis to resection and now the latter is regarded as the indication of choice for both ulcer and stenosis. Resection cures radically a large per cent of cases and without the likelihood of jejunal ulcer while it eliminates the danger of cancer. Naturally there are contraindications. If the general health is wretched, if the ulcer is seated at the cardia, if ulceration has involved the pancreas, and if resection will endanger the common duct, one should perform anastomosis. In

the author's 110 operative fatalities the chief causes of death were peritonitis and intrathoracic sequelæ.

False Gastric Ulcers from Foreign Bodies in the Pylorus—Victor Pauchet, the well-known surgeon, has operated twice on a complete diagnosis of gastric or duodenal ulcer and has found respectively a pin and four sewing needles embedded in the pyloroduodenal mucosa. Despite the simulation of ulcers the lesions found were not of that type, but represented only an inflammatory thickening. The condition was therefore that known to clinicians as "ulcer without ulcer" in which one of several conditions will be found—usually a simple gastritis, or else perigastric adhesions. The dominant symptoms in both cases were pain and hemorrhage. In the first case the diagnosis was duodenal ulcer and the patient, a woman of 25, was found to have swallowed four needles, but had no recollection of the fact, which must have gone back at least four years. Pauchet resected the duodenopylorus and made an anastomosis. The second patient was a woman of 59 with symptoms dating back 30 years. After a diagnosis of gastric ulcer had repeatedly been made Pauchet operated but found a pin in the pyloric mucosa. In the duodenal patient melena had been a prominent symptom.—*Bulletin de l'Académie de Médecine*, May 11, 1926.

Hyperpnea, Migraine, and Epilepsy—What is usually called hyperpnea or polypnea is rapid breathing with forcible inspiration of expiration. The voluntary act is referred to commonly, but there is an hysterical polypnea which is involuntary and which is said to give rise to the same effects. O. Muck, writing on this subject in the *Muenchener medizinische Wochenschrift* of June 11, 1926, does not discuss the entire subject of hyperpnea but only its alleged action in causing migraine in migrainous subjects and epileptic seizures in epileptics. He based his study of migraine on 17 female patients subject to migrainous attacks. In 12 the test was positive and in 5 negative. In all of the positive series the author was able to show that there was at the time a hypertonia of the cerebral arteries, which he recognized by the so-called adrenalin-sound or white line test of the nasal mucosa. When the patients were made to practise hyperpnea it was noted that at the end of two minutes migrainous pain appeared, in some cases accompanied with scintillating scotoma or some of the other symptoms which complicate migraine. This state of the cerebral arteries predisposes to other afflictions, notably tetany and epilepsy, and is spoken of as indicative of convulsibility. The pains

ceased at once when breathing became natural. In the same journal J Lange and E Guttman discuss hyperpnea in its relation to hysteria and epilepsy. O Foerster has described epileptic attacks of this origin as polymorphous and the authors, after analysis of a number of cases, reach the conclusion that the epileptic attacks are not typical, but suggest on the one hand hysteria or hysterio-epilepsy and on the other the affective epilepsy of Bratz.

Eradication of Infected Tooth Sockets—In view of the fact that the filling of root canals has proved a failure, inasmuch as every tooth from which the pulp has been removed is either infected or becomes infected within a short time after, and since the pulling of teeth by the ordinary technique fails to eradicate infection, Alonzo Milton Nodine (*Medical Press and Circular*, May 19, 1926, cxxi, 4,540-41) advocates the surgical removal of infected teeth. He calls attention to estimates showing that at the age of twenty-five, 25 per cent of the human race have septic mouths, at the age of forty, 90 per cent, and at the age of fifty, 100 per cent. Conservative estimates indicate that 10 per cent of all local infections have their source in infected teeth. The surgical method which the author recommends consists in making an incision from the cervical margin toward the apex of the tooth, through the gum parallel with the long axis of the tooth, and midway between the tooth to be removed, and the one either anterior or posterior to it. At times two incisions are desirable, one anterior and one posterior. This section of the gum is elevated with the periosteum of the bone, then the external plate of bone covering the tooth is removed, freeing the root and exposing the apical region, so that infected tissue can be seen and carefully, completely and immediately removed. The wound is cleansed, the rough edges of bone are smoothed, and the gum and periosteum are replaced and sutured in position. The anesthetic used is a 2 per cent borocaine solution, injected either to block the main nerve supply or locally. This method makes possible the complete removal of the tooth and infected tissue without fracture, or the destruction of an unnecessary amount of sound tissue, and guards against pushing roots into the maxillary sinus.

A Critique of Bernard's So-called Laws of the First-Born and of Alternation—Simply stated Bernard's law and its corollary are that "If an hereditary defect is to appear in the children of an affected parent it must inevitably occur in the first-born," and "if the children show the malformation at all, the abnormal and the normal children will alternate."

The latter law is rigorous for the first two children, and more or less rigorous after that. Evidence showing that these laws are contrary to the experience of geneticists and those dealing with large numbers of persons suffering from inheritable diseases is presented by Madge Thurlow Macklin (*Canadian Medical Association Journal*, June, 1926, xvi, 6) who has tabulated the findings concerning 76 families with hereditary disease. The results of the study show that there is no greater tendency for the first child to be abnormal than there is for it to be normal. Of the 76 families, 54 per cent had abnormal and 46 had normal first children. It is shown further that abnormal children in such families may be born subsequent to a normal first child—indeed they are liable to appear in 50 per cent of the cases. There is no greater tendency for the affected to alternate with the normal than would be expected on the basis of chance. All possible arrangements of affected and unaffected appear. Such statements as those of Bernard, based on insufficient evidence, are pernicious, Macklin says, and may work to the detriment of the individual from either the eugenic or the medicolegal aspect.

Blood Counts and Internal Secretion—H Zondek and G Koehler discuss this subject with special reference to anemia, leucemia, and polycythemia. If thyreoidin is given to a sound subject in dosage of 0.1 to 0.3 gm and a blood count taken in half an hour the number of erythrocytes may be found to be increased, at times enormously. This increase may be from half a million to two million, without a proportional increase in hemoglobin, which indicates that the new red cells are immature and relatively poor in coloring matter. This phenomenon is not constant and is much more apt to occur in the summer months. Conversely in a certain percentage of individuals, in place of an increase a diminution of red cells will be found to follow these injections and this form of reaction has thus far been found only in the winter months and in all subjects tested, whether well or ill.

From another angle it has long been known that subjects with endocrine disturbances show anomalies of cell counts. Thus a subject with Graves's disease has a tendency to polglobulia, a myxedematous patient to anemia, and a subject with Addison's disease to eosinophilia. Again subjects with thymus hypoplasia show a lymphocytosis, eunuchoids a polglobulia, and actual eunuchs a mononucleosis. Finally patients with pluriglandular insufficiency show a leucocytosis, sometimes large—up to 20,000. Leucemias also show this kind of formula. A number of hormones, not alone thyroid, can alter both the red and white cell

count, even in minimal doses. One milligram of chemically pure dried bone marrow or spleen can cause almost a shock-like disturbance of the blood picture. Hence from what has been said it is evident that with hormones we can set up a genuine anemia, reduce the red cell surplus in polycythemia, or the white corpuscle excess in leucemia—*Klumsche Wochenschrift*, May 14, 1926

Physique, Temperament, Character, Psychopathy, and Crime—The efforts of Kretschmer, first published in 1921, to find physical types as a basis for temperaments, character any psychoses have provoked much interest among alienists and others. As this doctrine is based on thousands of anthropological measurements it has taken time to verify or oppose it. The *Archiv für Psychiatrie* for April 27, 1926, contains no less than four articles bearing on Kretschmer's work. Hans Gruhle discusses the build of the normal man, basing it on measurements on 118 Heidelbergers taken from the skin clinic and presumably free from psychoses. About half of these did not correspond to any simple type and the others were divided into 24 of the slender or asthenic type, 22 of the athletic build, and but 15 of the compact or chunky build (pyknic). In passing it may be noted that not one of the 118 was a typical Nordic. The large proportion of darkish people, including all of the pyknics, showed a heavy admixture of the Alpine or prehistoric western Slavs with the fair ancient Teutons. There was no trouble in isolating Kretschmer's three basic builds but it is not so simple a matter to connect them with temperaments, character traits, and insanities. The asthenics, although agreeing in physical build, were a motley lot in other respects. K. Kolle studied insanity from Kretschmer's viewpoint but saw only superficial resemblance between the schizoid temperament or character and dementia precox; he quotes Hoffmann as finding that only about half of his dementia precox cases showed a schizoid mental constitution before developing insanity. Kolle concluded that there is no radical distinction in physique between precocious demented and those with periodic insanity. A. Bostroem, in a study of victims of periodic insanity, find that the schizoid mental type corresponds to Scheffler's "Gothic" man, so called to distinguish him from the "Greek" man. H. Von Rohden alone seems inclined toward Kretschmer's views, and finds that most criminals, healthy or insane, are schizoids. There is certainly a resemblance between the psychic constitution of the criminal and the kind of crime he affects.

Ephedrine in Asthma—In an article appearing in the *American Journal of the Medical Sciences* for May, 1926, clxv, 5, William S. Thomas reports that ephedrine, administered by mouth to a series of 20 patients suffering from asthma, gave relief to all but 3. In certain asthmatic patients for whom no means of permanent relief had been found, the drug was used in regularly continued dosage with the result of keeping them free during the period of its administration. The dose employed was usually 50 mg. (about 1-10 grain) to adults, if ineffectual, the dose was increased, if it caused tremor, palpitation or other unpleasant symptoms, it was reduced. Children received doses in proportion to their size and age. The drug was usually given in aqueous solution, in which 1 minim contained 1-250 grain of the drug, in a few cases it was given in capsules for convenience. Relief usually occurs about thirty minutes after the ingestion of the ephedrine and lasts from four to twenty-four hours, much longer than is the case with epinephrine. Ephedrine is an alkaloid, the active principle of a plant, ma huang or *Ephedra vulgaris*, which grows abundantly in China. Its physiological effects resemble closely those of epinephrine and are all comparable with those of stimulation of the sympathetic nerve. Its advantages over epinephrine are that it is effectual when given by mouth, its effects are more prolonged than those of epinephrine, its by-effects, tremor and palpitation, are usually absent. It has the disadvantages that it occasionally fails to relieve symptoms when the other drug does relieve, that its effects are produced less rapidly, and that by-effects are occasionally met with which render its use impracticable.

Arrest of Hemorrhage by Intravenous Injections of Sodium Citrate—M. Renaud after two years of investigation at first hand comes out with the statement that a concentrated solution of this salt will check any kind of hemorrhage. It has been known for some years, as a result of experience in transfusion, that sodium citrate can powerfully modify the blood state and some of its activities suggested that it might prove an excellent hemostatic. This was first demonstrated in the clinic by Ottenberg of New York, in a case of hemophilia, while Neuhoof and Hirschfeld employed it before operating in cases in which excessive hemorrhage was feared. The author first tested the method in the hemorrhages of the cancerous and later in various other types. His solution is as follows: sodium citrate 30 parts, magnesium chloride 10 parts, in distilled water 100 parts. The injection is made very slowly into an arm vein, from 15 to 30 cc., according to the weight of the patient.—*Bulletin de l'Académie de Médecine*, May 11, 1926



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

THE DOCTOR AS A CITIZEN

The duty to bear arms in case of national emergency, the obligation to pay taxes, are among the elementary requirements of a citizen. The obligation to cast a ballot at the polls belongs within this category, and yet the extent to which this is ignored has constituted a just cause for deep concern, if not alarm, among our thinking people.

But the duties of an American do not stop there. There is the obligation to be a good citizen, to support our institutions and our laws, to put down usurpation, to watch and to prevent infractions of our liberties, to detect and thwart dangerous and unsound tendencies of government to suggest and to promote just measures of legislation, to nominate and to elect honest men to office who will carry these into effect. These duties, for their full consummation, require strong leadership. Leadership should be assumed by those capable of assuming it. The more favored of our people who have received the inestimable advantages of education should assume the high duty of leadership in our affairs.

There is no class of educated men that has studied harder or has had larger opportunities for sharpening and strengthening the mind upon the whetstone of knowledge than those who compose the medical profession. In no walk of life is more time necessarily consumed in preparing for the life work. It is not strange when the doctor, at the age of twenty-seven or twenty-eight, begins his independent economic life, that he should become absorbed in the problems of his vocation. In our present complicated system this result seems almost inevitable. But the doctor should never forget that first of all he is a citizen. His education and his training, the character he must possess in order to fit himself for his lifework, afford materials for leadership which have too often been neglected. In our vast, growing population, our economic life so largely dominated by

large corporate groups, the individual is indeed waging a battle of self-defense for his very existence. At no time were the responsibilities and the duties of the individual greater than in our day. The diminution of individual influences and importance is a tendency to be regretted and if possible to be stemmed. The importance of the clergyman as a spiritual leader of his community, the leadership of the old-time lawyer, and the honorable and trusted role of the old family doctor have been shrinking.

The doctor, by reason of his character and training and the confidence and trust which he receives from those to whom he ministers, has not only the right to leadership in his community, but it is his duty to assume it and to exercise it for the benefit of his generation. However exacting may be the requirements of his private practice, the importance and necessity of individual diagnosis, care and treatment, he should never forget that by reason of his high calling he is a minister of the public health. Wise and progressive legislation looking to this end should be originated, sponsored and enacted through his influence. Nor does his duty stop there. All things which concern the public welfare, the peace, honor, happiness and progress of our people, should concern him and engage his interest—because he is not only a physician but a citizen. For all these problems he has an equipment of education, character and strength which he should bring to bear.

No one appreciates more keenly or apprehends more clearly the tragic brevity of human life than the physician who is brought constantly in touch with death. A few brief years and it is all over. When it is done and the books are closed and the record is written up, it is not the fortune he has succeeded in acquiring, but what, in the largest sense, he has done for human beings, that will determine his biography.

DIAGNOSIS OF STONE IN URINARY BLADDER AND PROSTATE GLAND ENLARGEMENT

A carpenter about sixty-seven years of age residing in a small up-State village, in his complaint against a surgeon stated that some time prior to May 16th he was suffering from trouble with his urinary organs, the exact nature of which he was unable to determine and he thereupon engaged the defendant as a physician and surgeon to attend and treat the condition. He

charged that the defendant was negligent and careless in his examination and diagnosis, performed the same in a perfunctory manner and failed to locate the exact source of the plaintiff's trouble, which could have been easily determined had the defendant surgeon exercised the proper degree of skill and care, that the surgeon advised the plaintiff that he was suffering from stone in

the bladder and had prostate gland trouble, that it would be necessary to perform two operations to relieve him of his condition, that the patient relying upon the physician's advice, submitted to an operation in the performance of which the defendant made an incision in the patient's abdomen, into the bladder, and that upon examination of the bladder it was found that no stones were present therein, but that the bladder was in a perfectly healthy condition, that the operation required the plaintiff to remain in the hospital for a period of about three weeks, that he was thereafter removed to his home where he was examined by another physician, who informed him that he was not suffering from any bladder or prostate gland trouble, but a slight stricture which could be and was cured by the other physician without any operation. He charged that his true ailment should have been discovered by the defendant and that the operation performed was wholly unnecessary and that by reason thereof he suffered injury and incurred expense which he sought to recover in this action.

From the defendant's history of this case it appeared that the plaintiff was referred by another surgeon to him for examination and treatment, that he first procured from the plaintiff a history of his ailment and the symptoms of which he complained, and after a thorough and exhaustive physical examination he made a diagnosis of an enlargement of the prostate gland and the possible presence of stone in the bladder, that in connection with his examination and diagnosis he caused X-rays to be made of the abdominal region, and particularly of the bladder, procuring interpretations thereof by the roentgenologist. Upon completion of his examination he advised

the plaintiff of his findings and diagnosis and further advised a two-stage operation, the first to be performed upon the bladder and then to operate upon the prostate gland. The patient entered the hospital and was operated upon on May 17th. No stones were found in the bladder, but the same was found to be in an inflamed and diseased condition. The patient continued in the hospital for a period of seventeen days, during which time the defendant prescribed and rendered to him the necessary and proper treatment. At the end of his stay in the hospital the plaintiff requested permission to return to his home in an adjoining village for convalescence in preparation for the second-stage of the operation upon the prostate gland. The defendant thereupon consented to plaintiff's returning to his home and arranged for his return to the hospital in two weeks for the second stage of the operation. The plaintiff, however, never returned for any further treatment or operation by the defendant, but instead instituted this action of alleged malpractice.

On behalf of the defendant, supported by the affidavits of the various physicians and nurses who had attended the plaintiff, a motion was made to change the place of trial to the county in which the defendant resided, on the ground of convenience of witnesses, which motion was granted.

The case came on the calendar several times for trial, at each of which times the plaintiff requested an adjournment of the trial. Finally, when forced to proceed with the trial of the action, the plaintiff withdrew his complaint, thus terminating the action in favor of the defendant.

DELAY IN DIAGNOSIS OF A FRACTURE

A suit was instituted against a private sanitarium or hospital for nervous and mental diseases and a physician who was superintendent of the same. In this action the complaint charged that the sanitarium was a corporation operated for the treatment of persons suffering from nervous diseases and ailments, that the defendant physician was in charge of the institution, that the plaintiff had been received as a patient at said institution suffering from a state of nervousness, that by reason of her condition the defendants owed to her the highest degree of care and caution in order to prevent her from becoming excited or her condition aggravated, that on a certain day a nurse at said institution suddenly and without warning, when the plaintiff was attempting to leave her room, shouted so that the plaintiff became frightened, lost her balance and fell. It was further charged that the defendant physician owed to the plaintiff the duty of an immediate examination to determine the nature of her injuries by reason

of such fall, that both defendants had failed in this respect and that by reason of the fall the plaintiff had sustained a fracture of the left thigh bone, which injury was not discovered by the defendants for a period of several weeks, and that by reason of the delay in diagnosis the fracture was aggravated and the plaintiff necessarily suffered by reason of such delay, causing a shortening of the leg of about three inches and a paralyzed condition of the fractured limb.

The defendant physician, as superintendent of the institution, had at no time personally attended or treated the plaintiff, she being under the care of other physicians at the hospital. It was no act of the defendant, as physician in charge of the hospital, which caused the delay in the discovery of the fracture of the plaintiff's thigh and he was made a party defendant in the action because of his position as physician in charge of the hospital.

The action was dismissed.



GRADUATE EDUCATION



THE COURSE IN MONTGOMERY COUNTY

Editor's Note The Medical Society of Montgomery County has been one of the leading societies in promoting graduate education among its members. When the State Medical Society offered courses to the several county societies the leaders of the Montgomery Coun-

ty Medical Society designed a course that was more intensive than those in other counties—in fact, real postgraduate work was required of those who attended the course. The following report of the course was made by the committee that had it in charge.

CLINICAL LECTURES ON CARDIO-NEPHRITIS, HYPERTENSION, AND DIABETES GIVEN BY HARRIS A. HOUGHTON, M.D., NEW YORK CITY

An intensive course of clinical lectures was given evenings at the Amsterdam City Hospital, by Dr. Harris A. Houghton, of New York City, under the auspices of the Medical Society of the County of Montgomery.

The course was started on March 12, 1926, and one lecture was given each week until eight sessions had been held.

The schedule as announced and carried out was as follows:

Collateral Reading Those expecting to attend the complete course will find it desirable to purchase and read in conjunction therewith the following:

Floyd, Rolfe—"Kidney Disease From the Physician's Viewpoint" Published by James T. Dougherty, No. 427 West 59th Street, New York City.

Allen, Frederick M—"Treatment of Kidney Diseases and High Blood Pressure," Part I. Published by the Physiatrie Institute, Morristown, N. J.

Joslin, Elliott P—"The Treatment of Diabetes Mellitus" Published by Lea & Febiger, Philadelphia, Pa.

DuBois, Eugene F—"Basal Metabolism in Health and Disease" Published by Lea & Febiger, Philadelphia, Pa.

Those attending will find it also desirable to bring with them copies of the current issue of the *Journal of the American Medical Association*, as Dr. Houghton will discuss for a few moments at each session articles which touch upon subjects included within the scope of the course.

The equipment required will be a large blackboard, projection lantern and pointer.

Clinical material required for demonstration will include for the earlier sessions patients having blood pressures of 200 mm. or under. They are usually ambulatory cases, and should

be selected from the outpatient departments or from private practices and from among those who are willing to submit to the treatment required as to diet and possible minor surgical operations. The younger patients yield the best results. Later, there should be presented patients with higher blood pressures, and those presenting frank quantities of albumen in the urine with or without blood pressure or edema.

One or two cases of diabetes and high blood pressure, each or both, on whom it is proposed to do some major surgical operation, are desired to illustrate the metabolic preparation of patients for operation, and to watch the post-operative reactions. Cases suffering from diabetic coma, uremia or eclampsia may be presented at any time during the course.

The several sessions will begin promptly at the appointed time and will last from seventy-five to ninety minutes with an intervening ten minutes for relaxation. Lantern slides showing the results of chemical examination of the blood plasma from normal individuals and from patients suffering from abnormalities under discussion, including properly calculated Van Slyke's coefficients for non-threshold substances and of Ambard's threshold for the threshold substances, will be thrown on the screen. Also, charts indicating the progress of different types of cases under satisfactory dietetic and other treatment will be studied and relationships established. It is proposed also to parallel this kind of didactic instruction with a study of cases furnished by the local physicians. Wherever possible, patients should enter hospitals for a week or ten days for proper diagnosis and especially for their own instruction in diet and other essential details.

The services of a skilled dietician and a laboratory properly equipped for doing chemical examinations of the blood plasma are all but essential. In the absence of this kind of assistance, the lectures will necessarily become didactic rather than objective.

the bladder and had prostate gland trouble, that it would be necessary to perform two operations to relieve him of his condition, that the patient relying upon the physician's advice, submitted to an operation in the performance of which the defendant made an incision in the patient's abdomen, into the bladder, and that upon examination of the bladder it was found that no stones were present therein, but that the bladder was in a perfectly healthy condition, that the operation required the plaintiff to remain in the hospital for a period of about three weeks, that he was thereafter removed to his home where he was examined by another physician, who informed him that he was not suffering from any bladder or prostate gland trouble, but a slight stricture which could be and was cured by the other physician without any operation. He charged that his true ailment should have been discovered by the defendant and that the operation performed was wholly unnecessary and that by reason thereof he suffered injury and incurred expense which he sought to recover in this action.

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On behalf of the defendant, supported by the affidavits of the various physicians and nurses who had attended the plaintiff, a motion was made to change the place of trial to the county in which the defendant resided, on the ground of convenience of witnesses, which motion was granted.

The case came on the calendar several times for trial, at each of which times the plaintiff requested an adjournment of the trial. Finally, when forced to proceed with the trial of the action, the plaintiff withdrew his complaint, thus terminating the action in favor of the defendant.

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The action was dismissed.

3 A short resume on the metabolism of calcium and the uses of parathyroid extract (Col-lip)

EIGHTH SESSION

The final session is to be devoted to a short review of the subject matter of the course, the

discussion to follow lines suggested by questions presented in writing at the opening. A final consideration of cases studied during the course will be undertaken, successes and failures noted and prognosis given.

Time is given at the close of each session for those in attendance to ask questions.

REPORT OF THE COMMITTEE

The Post-Graduate Committee of the Montgomery County Medical Society has reported on the course as follows:

"Dr Houghton proved himself to be a good teacher, emphatic in his conclusions and methodical in the grouping of his material which sometimes was quite technical but clarified as the course progressed.

"The attendance during a session when auto travel in the country was impracticable, averaged 28 out of a possible 47.

"Blackboard and lantern slides were used for demonstration. The doctors furnished cases for diagnosis and treatment.

"The laboratory provided the reports on blood chemistry, urines, etc., in advance of the arrival of Dr Houghton. The doctor reviewed the cases each week and checked up treatment and results.

"The effect of diet in some selected cases, illustrated very clearly its importance in the reduction of hypertension. Focal infection (teeth, tonsils, sinuses, etc.) were also recognized in their influence upon metabolism.

"The interest in the clinical session was sustained throughout the course. There have been two opinions regarding the practical value of such a study of metabolism at this particular period of its evolution. On one hand it has been said that those who are accepted as teachers are not in agreement, and that therefore conclusions

are likely to be questionable, premature or misleading and therefore of limited value to the practitioner. On the other hand, it is claimed that there is enough already sufficiently settled to make metabolism and the application of our later knowledge of blood chemistry, of insulin, of uremia, of acidoses, of obesity, of eclampsia, etc., much more comprehensible and applicable to the daily practice of medicine. Whoever has read Joslin and Allen will appreciate this. In this latter opinion, the Medical Society of Montgomery County subscribes. Twenty-eight or more of its members have been given a suggestive and mentally stimulating course that will inspire them for years to come to further study of a topic that has been somewhat hazy and not easy to grasp in ordinary reading. Its reaction upon medical practice will be of positive advantage to the community in which they practice.

"The objection that these subjects touched upon are not yet complete may be applied to all our knowledge. At best, it is relative and tentative. It can never be regarded as finished. A revision of standards will always be necessary to our progress."

Committee,

CHARLES STOVER, *Chairman*

L. H. FINCH

H. M. HICKS

RESOLUTIONS OF THE COUNTY SOCIETY

At a regular meeting of the Medical Society of the County of Montgomery held at Canajoharie, on Thursday evening, June 24th, 1926, the following resolution was introduced by Dr Charles Stover and adopted by the Society:

"Resolved that the Medical Society of the County of Montgomery record its appreciation of the service rendered by the Committee on Public Health and Medical Education in providing this course of education, and recommend the appli-

cation of this principle to other county societies for the advancement of medical progress.

"Be it further resolved, that the thanks of the Society be given to Dr Houghton for his scientific instruction, his genial courtesy at all times, and his success in maintaining sustained interest in the course from first to last.

"Resolved further, that these foregoing resolutions be sent to the Chairman of the State Committee and to Dr Houghton."

WILLIAM R. PIERCE, *M. D., Secretary*

FIRST SESSION

Forty minutes in didactic instruction laying out the program of the course and diagnosis and laying out treatment of cases presented

1 Importance to the family physician of a full understanding of the principles of diagnosis in detecting early nephritic changes and in a comprehension of the alterations in metabolism

2 Thinking in terms of function rather than of pathology, discarding classifications of nephritis based on pathological changes in the kidney

3 Altering our attitude of hopelessness to hopefulness as metabolic changes are better understood and as present day treatment improves life span of nephritics and hypertension patients

4 Interpretation of albuminuria as a manifestation of irritation rather than evidence of nephritis

5 Influence of acute infections on kidney function Applying same principles to chronic lesions

6 Nephric irritations—(a) of chemical origin, (b) of bacterial origin, (c) those originating in food-stuffs, (d) hyperfunction the equivalent of irritation (?)

7 Final effects of prolonged irritation

SECOND SESSION

Forty minutes of didactic instruction Exhibition of slides and charts Clinical diagnosis and suggestions for treatment

1 Definitions "factor of safety", "overload", Ambard's threshold A consideration of non-threshold substances and the calculation of Van Slyke's coefficients

2 Illustrating the affects of prolonged, low grade irritation on kidney capacity Generalized effect of such intoxications on all body cells of which the kidney is only a part, leading to generalized subfunction

3 Progressive retentions in the natural history of Bright's disease as shown by the blood chemical examinations

4 Transference of our allegiance to urinary examinations as a method of examination to chemical examinations of the blood plasma

5 Classification of kidney insufficiencies based on functional limitation and clinical symptoms

6 Two varieties of kidney insufficiencies (a) salt retention, (b) azotemias

7 Two types of salt retention (a) edema, (b) high blood pressure

THIRD SESSION

1 Threshold substances sugar, salt, water, plasma protein (?) Non-threshold substances

sugar, uric acid, urea, creatinin Fundamental differences in the behavior of the kidney to the substance comprised in these two general classes

2 Each substance considered in its normal and pathological aspects

FOURTH SESSION

1 Presentation of charts to illustrate combinations found clinically and considered in theory at the third session

2 Hyperglycemia and concealed diabetes as a complication of high blood pressure

3 High blood pressure as a complication of diabetes Border line cases

4 Effect of pneumonia on salt content of the plasma and the urine, and upon hypertension

5 The low salt diet in high blood pressure and edema, what may be expected of it

FIFTH SESSION

1 General principles of dieting Abandoning the use of the term "calories" for "grams glucose" as a measure of foodstuffs

2 Woodyatt's formulas and their purposes

3 Calculation of diets according to Woodyatt's formulas

4 Physiology of sodium chloride reviewed and its abnormal metabolism Toxicity and irritating effects

5 General principles of the low salt diet and how it may be calculated

SIXTH SESSION (ACIDOSIS)

1 Ionic disassociation, ph or hydrogen ion concentration

2 Van Slyke's theoretical nine areas of acid-base equilibrium

3 The CO₂ of the plasma and its method of determination

4 Lines of defense against acidosis, carbonic acid gas and sodium bicarbonate Interreaction of the sodium phosphate salts

5 Acidosis in clinical practice, diabetic, nephritic, pernicious vomiting, etc

6 Diets of low acid content and other treatment

7 Acid-base content of food stuffs

8 Treatment of diabetic coma

SEVENTH SESSION

1 Metabolic preparation of patients for surgical operation (a) effect of ether administration on corporal metabolism, (b) influence of postoperative acidosis and hyperglycemia in the prevention of healing

2 Uses of insulin in other conditions than diabetes Bringing diabetic patients into glucose-equilibrium without the help of the laboratory

"The multitude of bathing and wading pools about the city for children, he said, had in some cases been shown to be the source of typhoid infections. At the Tompkins Square bathing pool in 1925 seven cases of typhoid were reported."

The New York Sun of August 4th prints a warning about the dangers of public bathing pools, sent out by the Gorgas Memorial Institute. The article says

"Every summer the practice of the eye, ear and nose specialist is materially increased by an influx of patients calling for treatment of diseases contracted in the public swimming pools and bathing resorts

"Acute infections of the ears and sinuses of the nose comprise the majority of these ailments, while infections of the eyes and lids are less frequently met

"How are these diseases contracted and what can be done to prevent them?"

"The use of chemicals in the water and the frequent changing of the water are helpful, but are entirely inadequate in themselves to safeguard the patrons against infection

"A bather with a discharging ear, an infection in the nose or eye, can take one dive and scatter enough germs throughout the pool to infect any number of his fellow bathers. Their ears, eyes and noses become filled with this contaminated water."

The writer then advocates bathing in large bodies of running water where self-purification of the water can take place. There is great need that this warning should be sent out, for the proprietors of bathing establishments at the seaside where pure water is free, build swimming pools for whose contaminated water bathers pay large sums—and as a result bathers also patronize the doctors

SERUM FOR SNAKE VENOM

The newspapers of May 29 and 30 printed accounts of the spectacular transportation of serum for snake venom from the Zoological Garden of New York City to Ithaca for the treatment of a man who had been bitten by a rattlesnake in a laboratory of Cornell University. The patient had intruded into the laboratory and annoyed the caged snakes out of mere curiosity. When his hand began to swell a half-hour after it was bitten, he informed the College authorities, who immediately took steps to secure the curative serum

Snake bites are extremely rare in the United States, but are serious public health problems in India and Brazil. The staff of the Zoological Garden had collected a pint or more of rattlesnake venom and sent it to the Brazilian health authorities for making an antitoxin, and in return they received a small supply of the antitoxin for emergencies, such as that at Cornell

It is gratifying that the serum reached Ithaca in time to save the patient's life and limb

EUTHENICS

The new science of eugenics, which is often mentioned in the daily press, is of special interest to psychiatrists, and to general practitioners who have to deal with nervous per-

sons. The definition of eugenics is well put by James J. Montague in the following verses in the New York Herald-Tribune for August fifth

Eugenics is a science which,
Translated into action,
Will bring to both the poor and rich
Transcendent satisfaction
If this leaves you a bit nonplussed,
We'll make it short and snappy,
And simply state that it is just
The art of being happy

But happiness, of course, depends
On what a man may long for,
Upon the purposes and ends
He happens to be strong for
The hunter's heart expectant turns
To grouse and ducks for shooting,
The burglar naturally yearns
For unrestricted looting

The pug—we mean the pugilist—
Likes life to be exciting
And therefore would, of course, insist,
On quite a bit of fighting
While Senators and Congressmen
Would earnestly endeavor
To talk and talk and talk again,
And keep it up forever

The more this science we peruse
The more it has us guessing,
To let all men do what they choose
Would surely prove depressing
Were statesmen talking all the time
And fighters always scrappy,
And criminals engaged in crime,
We'd none of us be happy!



THE DAILY PRESS



THE PURSUIT OF BEAUTY

The New York Times of March 31st comments editorially on the pursuit of beauty as exemplified by the rapid growth of beauty parlors and says

"There is danger of exaggerating the moral implications of a cosmetics and beauty-parlor industry, with an annual output, as the United States Census would say, approaching half a billion dollars. The age is frivolous, perhaps, but not to the extent that would seem to be indicated by this lavish expenditure on the adornment and refinement of the flesh

"What has happened here is only another instance of specialization and the factory system replacing domestic industry"

"The beauty specialist has become accessible to a population that never could afford the luxury of a boudoir and a capable ladies' maid. Considering the amount of time and energy expended by individual women through the ages in striving for beauty and against the onset of time, the present system probably represents an economic gain. What does count is the newer, and, on the whole, admirable frankness. Formerly the world agreed to overlook the vast secret labor that entered into the maintenance of feminine beauty. Today we resort to the beauty-parlor as openly as to the barber's, and frequently the same person resorts to both

"The doctors have preached hygiene—with a tranquil soul—as the only way to true beauty, and one result has been a tremendous increase

in beauty doctors. Fashions in women's dress have been growing more and more mannish, but the lotion and perfume bills have been going up. The doctors have taught that the only real adornments of youth are those which come from fresh air, exercise, diet, sleep and healthful thoughts. But youth seems to have gone in for artificial reinforcements"

The insinuations of error of judgment on the part of doctors is not supported by facts. Paint and powder and artificial beauty are readily apparent. One cannot help but be impressed with the great preponderance of fairness, clear complexions and well nourished figures of both men and women seen on the streets. No longer is a woman of forty to be considered old. She is young, not because of beauty parlors, but because of the teachings of physicians. Proper diet is now understood as never before, the results of eating green vegetables and drinking milk are seen on every hand. The pale slimness and the flabby fatness of former days have both disappeared from fashion, and in their place have come the natural beauty which is revealed rather than concealed by modern styles of dress.

Beauty parlors will continue to flourish as aids in the maintenance of artificial styles of hair dressing and finger manicuring, but the real beauty of American women and men, too, would continue if beauty parlors were as rare as they were a generation ago.

BATHING IN POLLUTED WATERS

The daily papers of New York City are giving wide publication to the efforts of the Department of Health to control the sanitation of the public beaches and other bathing places. The waters of the East and North Rivers are called public sewers and the beaches at the ocean front are menaced with garbage from the sea, and rubbish left by picnickers. It seems incredible that anyone would leave sharp tin cans and broken bottles on the beaches, and yet these are the subject of several cartoons by the Brooklyn Eagle.

The Herald-Tribune of August 5th says

"Insanitary conditions at beaches near New York City get worse as the season progresses, Dr. Louis I. Harris, Health Commissioner, said yesterday. His latest surveys revealed that Rockaway Beach continued to be strewn

with all kinds of debris and refuse, 'and an occasional dead animal'.

"'From Belle Harbor to Neponset,' the Health Commissioner said, 'the debris has accumulated in similar fashion. From Cross Bay Boulevard it is possible to see littered refuse left by picnickers on the beach.

"This refuse is fly-breeding, and the persons living in the vicinity should attempt to clean up these places until there is devised a systematic method of sanitation."

"Dr. Harris again explained that the municipal bath houses, although floating in the Hudson River, were nevertheless fed by Croton Reservoir water and therefore clean. The East and North Rivers he characterized as 'open sewers,' making it plain that the city authorized no bathing in either stream.

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The closing chapter of the book is a masterpiece of condensation. Within 13 pages is summarized an extraordinary amount of knowledge concerning clinical cardiology which should be read and re-read by every physician treating hearts

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I COHN



BOOK REVIEWS



MEDICINE MONOGRAPHS

THE THERAPEUTIC USE OF DIGITALIS By G. CANBY ROBINSON. Volume 1. Octavo of 137 pages. Baltimore, Williams and Wilkins Company, 1923. Cloth, \$2.50.

This is an excellent monograph on the subject of this most interesting and valuable drug. Robinson has prepared a splendid account, dealing with the historic, pharmacologic and therapeutic aspects of the fox-glove.

The size of the book, 137 pages, allows ample space for thorough discussion, citation of opinions, and extensive reference lists. It is gratifying to have so much information between the covers of so handy and convenient a volume.

FRANK BETHEL CROSS

VOLUME 2. CYANOSIS By CHRISTEN LUNDSGAARD and DONALD D. VAN SLYKE. Octavo of 80 pages with illustrations. Baltimore, Williams and Wilkins Company, 1923. Cloth, \$2.00.

This little volume is so highly scientific that it probably will be of no practical benefit to the general practitioner. It abounds in many formulae, many paragraphs of French, some of German. It will probably be of immense value to the physiologist.

H. J.

VOLUME 3. EDEMA By LEO LOEB. Octavo of 178 pages. Baltimore, Williams and Wilkins Company, 1923. Cloth, \$3.00.

This book, one of a series on special subjects, gives a comprehensive discussion of the factors concerned in producing edema and variations in these factors in different forms of edema.

Generalized edema, heart, lung and kidney edema and varieties of local edema are considered and experimental work is given considerable space.

Although well worth careful reading and containing reasonable explanations for various forms of edema, the experimental data by different workers is frequently conflicting, so that when one has finished the reading of this monograph he is made to realize that the cause and the relief of edema follow no regulated formulae.

JOSEPH G. TERRENCE.

VOLUME 5. DYSPNOEA By JAMES HOWARD MEANS. Octavo of 108 pages. Baltimore, Williams and Wilkins Company, 1924. Cloth, \$2.25.

This monograph discusses in a most detailed and scientific manner the mechanism and causes for dyspnea. For the ordinary student and practitioner, it is rather too advanced, but for the physiologist it is a storehouse of knowledge and facts.

H. J.

VOLUME 6. INSULIN AND ITS USE IN DIABETES Part 1—Physiology by J. J. R. MACLEOD. Part 2—Clinical Sec-

tion by W. R. CAMPBELL. Octavo of 242 pages. Baltimore, Williams and Wilkins Company, 1925. Cloth, \$4.00.

The authors of this monograph by virtue of their research work and extensive clinical use of Insulin are preeminently well fitted to give to the profession conclusive and authoritative data on the pancreatic hormone.

The work is divided into two sections. The first part is relative to the physiology of Insulin. Here the history of this internal secretion, the methods of preparation of Insulin, experimental deductions in depancreatized dogs and the physiological assay of this preparation are completely discussed and in a manner which readily holds one's attention. The second and greater section is entirely clinical and covers such phases as the early clinical experiments, the cause and methods of control of ketosis, acidosis and coma, the diagnosis of diabetes and its treatment. In successive chapters the methods of determining the dietary requirements of the individual case and the effect of Insulin is propounded in clear and concise language. This section includes a chapter on the general effects of Insulin with particular reference to diabetes in pregnancy and the administration of Insulin in infections. An interesting tabulated analysis of foodstuffs and a number of concise recipes are appended. There is added an exhaustive bibliography covering every phase of the subject.

This work brings the subject up to date. It is a laudable attempt to standardize the treatment of diabetes and present it in a workable form particularly for the general practitioner.

JAMES STEELE.

VOLUME 7. LEAD POISONING By JOSEPH C. AUB, LAWRENCE T. FAIRHILL, A. S. MINOT and PAUL REZNIKOFF. Octavo of 265 pages, with illustrations. Baltimore, Williams and Wilkins Company, 1926. Cloth, \$4.00.

This book contains a report of the study of lead poisoning at Harvard Medical School which work was financed by the National Lead Institute. It is divided into four parts: 1. Chemistry, 2. Pathology, 3. Physiology, 4. Clinical.

It represents an immense amount of work done on this subject in the laboratories at Harvard as well as a very complete study of clinical cases at the Massachusetts General Hospital. Much of the experimental work is original and is a valuable contribution to a subject of such great importance in industrial medicine and public health work. It is to be hoped that it may contribute to the reduction of the hazard in the lead industry of this country which, by the way, is much higher than that of England. This publication is especially timely now because of the great interest manifested by the profession in Blair Bell's lead treatment of cancer.

J. G. W.

METHODS AND PROBLEMS OF MEDICAL EDUCATION (Third Series). Quarto of 242 pages, with illustrations. Published by the Division of Medical Education, The Rockefeller Foundation, 1925.

This volume of descriptions of clinics, laboratories and methods of teaching in different parts of the world is

of great value to those interested in medical education. Most of this volume is devoted to laboratories. The teaching methods at Johns Hopkins and McGill, in the Department of Pathology are of great interest, and are set forth in detail. Laboratories at Cambridge, Harvard, Western Reserve, Groningen, Leiden, Frankfurt, Strasbourg, Peking, and Yale are described.

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THE ENDOCRINE ORGANS An Introduction to the Study of Internal Secretion. By SIR E. SHARPEY-SCHAFER, LL.D., D.Sc., M.D., F.R.S. Second Edition. Part 2. The Pituitary, The Pineal, The Alimentary Canal, The Pancreas, and the Sex Glands. Octavo of 418 pages, with illustrations. New York, Longmans, Green and Company, 1926. Cloth, \$7.00.

This book is the second part to be published by the author on his studies of the endocrine organs. It covers the pituitary, the pineal, the alimentary canal, the pancreas and the gonads. Of most of the recent works on endocrinology this book is certainly an outstanding accomplishment. At no time is the author carried away by speculative possibilities. Anatomy, physiology, pathology, careful clinical and experimental observations are constantly in the foreground.

The discussion of the pituitary is the most complete of all the recent works, and it is with due thought that the writer emphasizes the significance of histamine in this gland as well as in the other endocrine organs. A brief and valuable description of the history and present status of insulin is given under the study of the pancreas.

One is impressed with the care and thought the author has given his work to bring to light useful information in an unbiased manner out of a haze of experimental and clinical observations. It is a valuable book to the general practitioner who desires concrete information on the present status of the above mentioned internal secretory organs.

JOSEPH S. BENDETSON

POTTER'S COMPEND OF MATERIA MEDICA, THERAPEUTICS AND PRESCRIPTION WRITING. With especial reference to the Physiological Action of Drugs. Based on the Tenth Revision of the U. S. Pharmacopoeia including also many un-official remedies by A. D. Bush. 9th Edition. 12mo of 262 pages. Philadelphia P. Blakiston's Son and Company, 1926. Cloth, \$2.00.

This being the ninth edition of this little compend, which has so long supplied the immediate needs of the student, has been thoroughly revised and conforms to the tenth revision of the United States Pharmacopoeia.

Though brevity of statement is essential in a work of this kind, the essentials are there and for this reason the book is of value to the busy student. F. S.

THE DIAGNOSIS AND TREATMENT OF TUBERCULOSIS OF THE HIP. By G. R. GIRDLESTONE, B.M. (Oxon.), F.R.C.S. Octavo of 94 pages, with illustrations. New York, Oxford University Press, 1925. (Oxford Medical Publications.)

This is an excellent monograph on a specific disease of a particular joint. The author describes in a concise and definite manner his method of diagnosis and treatment of this condition. The text although complete and full is not burdensome. One may not accept all of the author's procedures, and there is no disease in which authorities disagree more than in tuberculosis of joints, still the book is a true contribution to the subject.

We hope the writer will produce other monographs of this character.

J. C. RUSHMORE

A MANUAL OF CLINICAL LABORATORY METHODS. By CLYDE LOTTRIDGE CUMMER, Ph.D., M.D. Second Edition thoroughly revised. Octavo of 547 pages, with illustrations. Philadelphia and New York, Lea and Febiger, 1926. Cloth, \$6.50.

This volume contains numerous additions and on the whole shows a considerable degree of revision of the former edition. A section on cutaneous reactions and a chapter on basal metabolism add materially to enhance the value of this book to the general laboratory worker and the general practitioner. H. M. F.

INDIGESTION What It Is and How To Prevent. ARTHUR L. HOLLAND. 12mo of 130 pages, illustrated. New York, D. Appleton and Company, 1926.

In a thoroughly popular and clear manner the author deals with "Indigestion." The causes, the method of treatment and the means of prevention are discussed. The first chapter is devoted to the anatomy and physiology of the digestive canal and even though somewhat technical is readily understood by the layman.

The discussion of food phobias and food idiosyncrasies are explained in a most lucid manner.

This small book of one hundred and twenty-five pages undoubtedly covers the subject of "Indigestion" completely and interestingly and deserves to be widely read. G.

YOUNG'S PRACTICE OF UROLOGY. Based on a Study of 12,500 Cases. By HUGH H. YOUNG, M.D., and M. DAVIS, M.D. Two octavo volumes, totaling 1,003 pages, with 1,003 illustrations. Philadelphia and London, W. B. Saunders Company, 1926. Cloth, \$12.00.

It is impossible to give a satisfactory review and estimate of this valuable two-volume work in the space of a few lines. It represents the experience and accomplishments of a master in his chosen field as based upon clinical experience with 12,500 cases. The task involved herein must have been stupendous.

The book is very fully and attractively illustrated and covers every phase of Urology. The chapter on Malformations and Anomalies is most interesting and complete. Eight chapters are devoted to Operative Procedure and Technique. The chapter on Examination of the Urological Patient should be valuable to every clinician. Much of the book is profitably devoted to Urogenital Infections and Neoplasms, also to Neoplasms, as well as to Obstructive Lesions.

The profession owes a deep debt of gratitude to the author for his valued publication. The prominent logical positions held by the many distinguished Urologists who were former residents and students of Dr. Young are an outstanding tribute to the author and his attainments. AUGUSTUS HARRIS

BIRTH CONTROL FACTS AND RESPONSIBILITIES. A Symposium Dealing with this Important Subject from Every Angle. Number of Angles. Edited by ADOLPH MEYER. 12mo of 157 pages. Baltimore, Williams and Wilkins Company, 1925. Cloth, \$3.00.

This booklet contains a series of 12 papers, by a group of authoritative collaborators, presenting the subject of Birth Control from various angles.

The first by Dr. Adolph Meyer may be regarded as a preamble to this new epoch in social evolution—Conscious and Rational Birth Control—"to provide for the future and health of the progeny and not merely the getting of children" is his keynote.

The "Florence Nightingale" of the B. C. movement is a message convincingly and truthfully stated. Here Margaret Sanger does not appear as the trained nurse (her profession) but rather as a modern "Jeanne d'Arc" carrying the torch of light and victory to the world, general and to her sisters in particular. Her conclusions are the result of a painstaking investigation into the problem in an extensive world tour.

All the other contributors are equally sincere and earnest in their portrayal of their carefully collected material bearing on this subject. Lack of space forbids more detailed review.

The economic as well as the conventional point of view is fully discussed embracing the yet unsolved and unsolvable—marriage and divorce—problem in its relation to Birth Control.

It is a compact and authoritative reference that may well be recommended to all students interested in the economic and sociologic problem. HARRY APPEL.

NEW YORK STATE JOURNAL of MEDICINE

PUBLISHED BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

VOL 26, No 17

NEW YORK, N Y

SEPTEMBER 1, 1926

STONE IN URETER

By RALPH L. DOORMASHKIN, M.D., NEW YORK

This paper deals with the significance of stone grooves in the presentation of the kidneys, and on the dilatation of the ureter with rubber bags in the treatment of ureteral calculi, and is based on the study of one hundred and sixty-four cases

IT has been a matter of common observation that a stone may be lodged in a ureter for many weeks and months without seriously hampering kidney drainage or without producing pelvic infection or extensive destructive changes in the kidney marked by hydronephrosis or chronic pyo-nephrosis. The only signs of damage may be evidenced by diminution of the functional activity as determined by elimination of dyes, the presence of an occasional leucocyte in the kidney specimens of urine, and the varying degree of pelvic retention. Renal infections as secondary to obstructing ureteral calculus are not as frequent as one is led to believe from the reports in the literature, while marked hydronephrotic changes with extensive destruction of the renal parenchyma (so called shell kidney) are rare during the first year of the disease.

An attempt was made here to study clinically the relative incidence of kidney changes resulting from calculous obstruction after a lapse of various lengths of time, to explain the mechanical reasons which safeguard the kidney and to establish a basis for conservatism in the management of ureteral stones. The following table was prepared from an analysis of one hundred and sixty-four cases of stone in the ureter, in which complete cystoscopic and roentgen ray investigation was made. A number of these cases were recurrences. The cases dropped out of observation for various reasons were put in a separate group so that a comprehensive survey could be made of the end results of ureteral obstruction in the group which was treated until the stone was removed. It must be stated that in a goodly number of cases kidney drainage was either improved or completely re-established by repeated dilatation of the ureter with indwelling catheters or other cystoscopic manipulations. A number of cases came under observation with marked renal infection which had completely subsided following ureteral catheterization and remained

free of infection although the obstructing stone was not removed for some time.

The figures given below, as already stated, represent the end results of ureteral obstruction, undoubtedly modified by cystoscopic manipulations.

TABLE I

Duration and Location	Infection absent	Mild infection	Acute severe infection	Chronic pyo-nephrosis and extensive hydronephrosis	Stone removed with aid of cystoscope	Operated	Passed out of observation
<i>One day to one month</i>							
Lower 1/3 of ureter	24	9		32	1	9	
Middle 1/3 of ureter	8	2	1	10	1	5	
Upper 1/3 of ureter	8		3	7	4	2	
Bladder and urethra	5			5			
<i>One month to six months</i>							
Lower 1/3 of ureter	23	1		24		4	
Middle 1/3 of ureter	3	3	1	3	4		
Upper 1/3 of ureter	5	1		1	5	1	
Bladder and urethra	5			5			
<i>Six months to twelve months</i>							
Lower 1/3 of ureter	7			6	1	1	
Middle 1/3 of ureter	1				1		
Upper 1/3 of ureter	1	2		1	2		
Bladder and urethra	1			1			
<i>One year and over</i>							
Lower 1/3 of ureter	8		5	10	3		
Middle 1/3 of ureter	2	1	1	2	2	1	
Upper 1/3 of ureter	5	1		3	3	1	
Bladder and urethra	3			3			
TOTAL	109	20	5	6	113	27	24

It has been noted in numerous instances that although the obstruction could not be overcome by the smallest ureteral catheter, urine was obtained through the catheter passed up to the stone, or urine could be actually seen to escape through the ureteral orifice. By injecting indigo carmine, the dye could be seen to escape from the orifice in many of these cases. The obstruc-

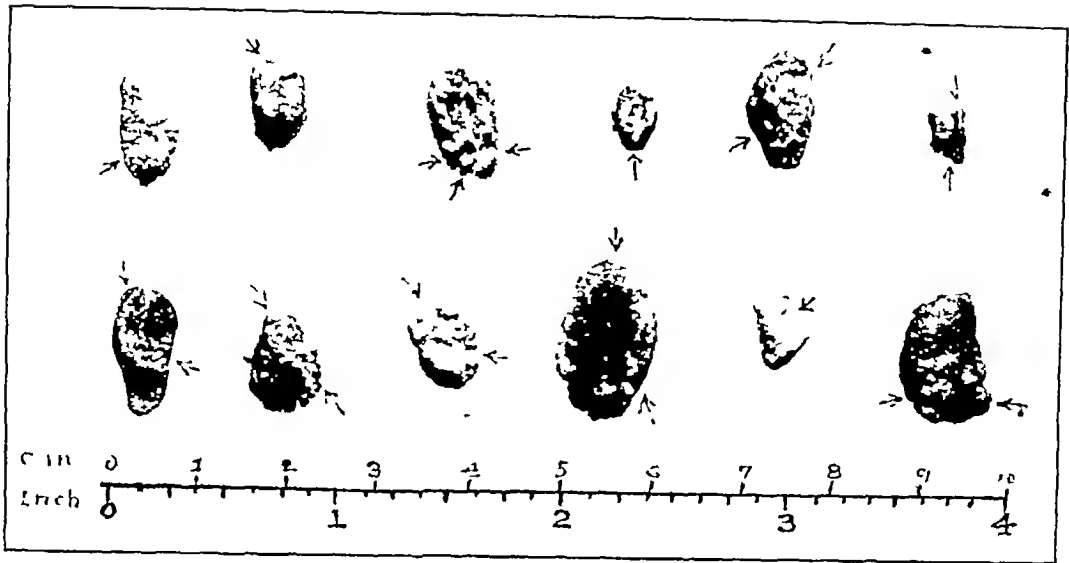


FIG. 1.—Ureteral stones, showing different types of linear grooves (arrows)

tion to the catheter is, therefore, not a criterion justifying surgical interference, and the presence of so-called hopelessly impacted stone even for a considerable length of time should, in the absence of renal infection, not be viewed with undue alarm, as we have some mechanism which allows for urinary drainage

Hunner¹ in his work on ureteral strictures has called attention to the fact that in a number of his cases the symptoms were not due to the stone itself but to the associated stricture below the stone, the urine burrowing a groove or a channel on the surface of the calculus, a factor responsible for the maintenance of kidney drainage. Although I may be not entirely in accord with the role played by strictures in formation of the stone as formulated by Hunner, his observation of the stone grooves has led me to the closer scrutiny of the stone specimens removed in my series of cases and helped me to understand many of the clinical phenomena incident to calculous impaction which were hitherto obscure.

In a collection of over one hundred ureteral stone specimens which I was able to procure, removed either by cystoscopic manipulations or by an open operation, definite linear grooves were found in thirty-three cases, which would place their incidence to about 30 per cent. These specimens were demonstrated before a recent meeting of the New York Academy of Medicine. All of them were impacted stones. Some of the stones were channeled deeply, others were more shallow and unless the stone was carefully studied the grooves may have escaped notice.

In one of the cases the channelization was so perfect that a deep tunnel was formed longitudinally through

which a No 5 Charrier olive tip catheter could be passed through. Judging from the history, this stone was lodged just below the uretero-pelvic junction for at least two years. The urine obtained from the kidney was perfectly normal and the elimination of phthalein was good. As several attempts to have this stone come down by intraureteral manipulation failed, it was removed by an open operation and was found to be held on the ureter by a dense fibrinous capsule.

The grooves were found to run either longitudinally, obliquely or transversely across the broader surfaces of the stone, and in a few instances the stone was merely notched at one of its poles or sides. A few of the stones had more than one groove and two specimens showed definite pit formation continuous with the groove, giving the stone a snail-like appearance. I am inclined to believe that the so-called mulberry-like calculi, or those studded with spiculi, having an eaten up, ragged appearance, owe their configuration to the urine burrowing its way to the bladder in an irregular fashion, all over the surfaces of the stone. If these specimens were included in the above group, the percentage of the channeled stones would have been much higher. The so-called floating stones, which act in a ball valve fashion were invariably found to have a smooth surface, and devoid of linear grooves.

The study of the roentgenograms in some of the cases revealed unmistakable evidence pointing to the presence of these grooves. When the groove is very marked and runs transversely, the appearance of the stone shadow may even lead one to the erroneous belief that he is dealing with two stones in the ureter, one placed on the top of the other. The kidney-shaped appearance of some of the ureteral stones on roentgen ray films is due to the grooving in the middle of the stone.

¹Hunner G. L. The Etiology of Ureteral Calculus. *Surg. Gyn. and Obst.* vol 27, p 252, September, 1918.

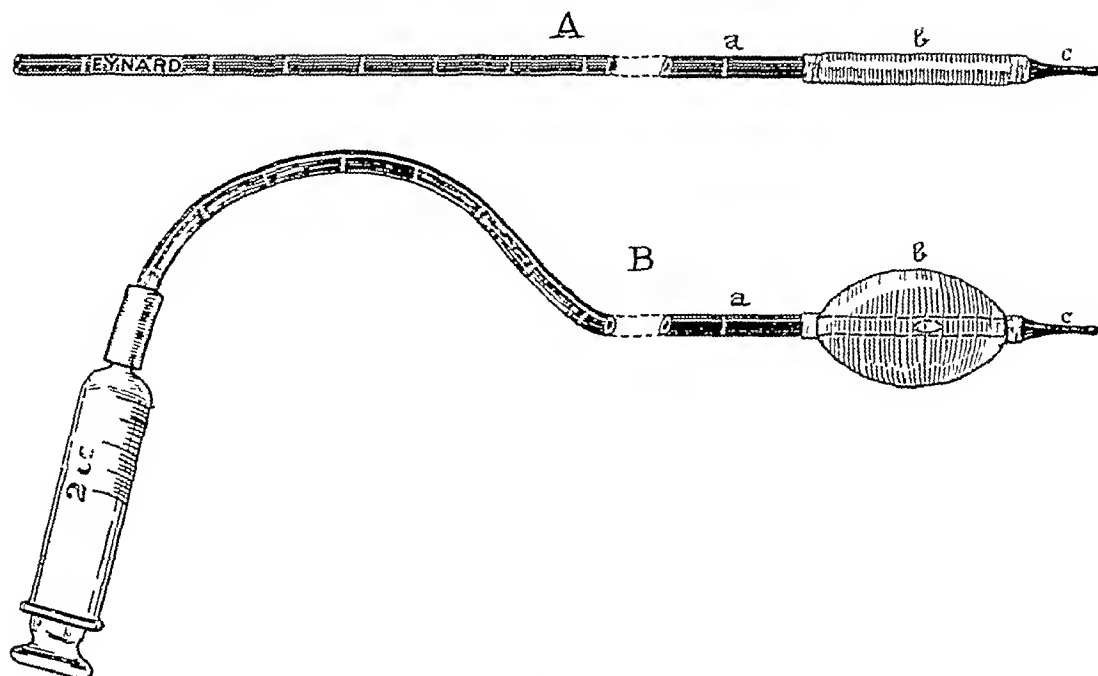


FIG 2

A—The rubber bag catheter before inflation a, the catheter, b, the rubber bag, c, the filiform tip
B—The rubber bag distended The dotted lines show schematically the eye of the catheter

It is the presence of these grooves that permits drainage and saves the kidney from ultimate destruction. It is the presence of these grooves that explains the fact why a patient may go about for many weeks with a stone in the ureter and yet be subjected to but a few attacks of renal colic. The renal colic is produced by sudden retention of urine in the ureter and the pelvis as result of complete obstruction. This is proved by the fact that emptying of the trapped urine by a ureteral catheter, if one succeeds to pass by the obstruction, is followed instantaneously by complete relief. Why should a stone which remains impacted in exactly the same spot for many weeks and months, as may be proven in numerous instances by roentgenograms, suddenly give rise to agonizing pain after periods of comparative ease? The pains in these cases evidently do not result from the descent of the stone. I venture to explain it by the fact that clogging of the grooves occurs in these cases by mucus, a blood clot or urinary deposits, causing thereby complete obstruction and acute retention of urine above the stone. The spontaneous relief, often observed in these cases is probably due to the forcible washing out of the clogged material by urine, as result of increased hydrostatic intra-ureteral pressure, or in more fortunate cases by the propulsion of the calculus itself.

The comparatively low incidence of severe renal infection or extensive hydronephrotic kidney changes as may be noted from the study of the

above table is undoubtedly due to the maintenance of drainage produced by channelization of the stone, which is nature's protective mechanism. The acute infections have occurred when the stone was suddenly impacted high up in the ureter, the extensive destruction of kidney took place when the stone was allowed to remain in the ureter for years through the failure of recognizing the condition. The table would tend to show that provided the patient is under continuous surveillance, provided one is reasonably certain that waiting will not result in permanent kidney damage and provided the position and the size of the stone are favorable to its removal by cystoscopic means, the stone may be allowed to remain in the ureter for several weeks or months before considering surgical intervention, with the hope that it may be made to come down by cystoscopic manipulations.

It is difficult and perhaps dangerous to set an arbitrary length of time for which a stone may be allowed to remain in the ureter, as each case must be judged according to its own merits. In considering the problems dealing with ureteral stones, the factor of greatest importance is the position of the calculus, that is, the part of the ureter where it is lodged. It is idle to discuss the relative possibilities of operative or non-operative removal of ureteral calculi viewing the ureter as a whole. The various percentages given by different authors can not be interpreted as the true index of what can be done with ureteral

calculi, unless they are accompanied by an explanatory table showing the relative position of the stone. The incidence of operative or non-operative removal of ureteral stones in this series of cases, based upon their groupings at the different levels of the ureter, are widely divergent, as may be gleaned from the following table

TABLE II

Location	Number of cases	Removed by cystoscopic manipulations	Per cent	Operated	Per cent
Lower $\frac{1}{3}$	77	72	93.6%	5	6.4%
Middle $\frac{1}{3}$	23	15	65.3%	8	34.7%
Upper $\frac{1}{3}$	26	12	46.0%	14	54.0%
Bladder and Urethra	14	14	100.0%	0	

Total removal of ureteral stones from ureter bladder and urethra by non-operative procedures, excluding the group which dropped out of observation	80.7%
Operated	19.3%
Including the group which dropped out of treatment, non-operative removal	68.9%
Operated	17.1%
Lost	14.0%

The following general principles may be laid down in determining the length of time the stone may be allowed to remain in the ureter

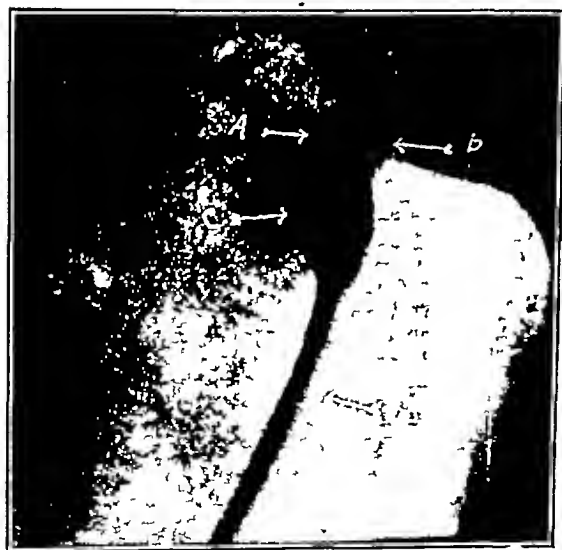


FIG 3—A, Stone in ureter, 11 cm above the bladder. B, the filiform tip of the device is seen to pass by the stone. C, the rubber bag inflated with opaque solution just below the stone. D, the catheter

1 If the stone is situated in the upper or middle part of the ureter, and following two or in the most three consecutive fruitless attempts to pass by the obstruction with catheters and the



FIG 4—As compared with Fig 3, most of the inflation took place not laterally but in a longitudinal direction, pushing the stone (arrow) upward for 4 cm. This bag was tied only at its proximal end. Patient passed the stone

failure of the stone to show any tendency to move, an open operation is indicated, even in the absence of infection and the apparent presence of drainage through channelization

2 If the obstruction has been passed, the stone being in the upper or middle part of the ureter, and it is apparent that the functional activity of the kidney has been improved and the infection combatted, one should wait a little longer, even if the stone has not moved. It is in these cases that leaving one or more ureteral catheters in the ureter for considerable length of time, as advocated by Buerger² and, more recently, by Beer and Hahn,³ has resulted in the loosening up of the calculus

3 The downward movement of the stone even for a fraction of an inch as determined by roentgenograms, is presumptive evidence that encapsulation of the calculus has not taken place, and one may with reasonable certainty expect the stone to come further down. Treatment should be vigorously pursued in these cases, lest the stone becomes tightly impacted or encapsulated

4 It is when the stone is situated in the lower ten centimeters of the ureter that the advisability of prolonged waiting should be emphasized, even though the stone may appear to be hopelessly impacted, provided, of course, renal infec-

² L. Buerger. Concerning Renal Complications of Ureteral Stones and their Prevention. *Virginia Med Monthly* p 439 Nov 1921

³ E. Beer and L. I. Hahn. Use of Indwelling Catheter to Induce Passage of Ureteral Stones. *The Journal of A.M.A.* Vol 84 p 1028 April 4 1925



FIG. 5A—The rubber bag inflated with opaque solution is shown here below a fair sized stone (arrow) in the right ureter 4 cm above the bladder. Patient gave a history of having had attacks of renal colic for four years. Many previous attempts by other cystoscopic methods failed to bring this stone down and the patient was advised an operation.



FIG. 5B—Same case. Twenty minutes later. The stone descended to a point almost within the intramural portion of the ureter. Patient passed the calculus.

tion or other emergency is excluded. The five operative cases in which the stone was situated in the lower one third of the ureter were all badly neglected cases of old standing when the stone was allowed to remain in the ureter for years, either through the failure to recognize the condition or the unwillingness on the part of the patient to have the stone removed. Two of these

cases had bilateral calculous obstruction and were threatened with uremia, so that the operation was not a matter of choice but emergency. The results so far obtained have sustained me in my firm belief that practically every case of stone in the lower end of the ureter is amenable to its removal by intraureteral manipulations, by methods which were described in my previous publications on this subject.^{4,5} There are cases in which the stone has reached such an enormous size that its removal by cystoscopic means is a matter of me-



FIG. 6—Dilatation of the uretero-pelvic junction with the rubber bag for a small pelvic stone. Patient is still under treatment.

chemical and anatomical impossibility. Those cases, however, are so badly neglected that removal of the obstructing calculus is of no practical importance, as only a nephrectomy will solve the problem.

The most essential factor in the treatment of calculi situated in the lower third of the ureter is dilatation of the ureter below the obstructing stone. The nearer the degree of the dilatation conforms to the size of the stone the better are the prospects of its removal. Ordinary ureteral catheters do not produce sufficient dilatation, especially when the stone is large. In the past few years gradual dilatation of the ureter up to 20 F was produced with the aid of tunneled bougies, which the author devised a few years ago.⁶

Recently I began to use rubber bags for dilating ureters instead of the bougies as it allows dilata-

⁴ Dourmashkin, R. L. A New Tunneled Ureteral Bougie for Dilatation, Catheterization and Irrigation. *Urol. and Cutaneous Review*, vol. 28, p. 70, Feb. 1924.

⁵ *Idem.* Concerning the Use of Tunneled Bougie and the Hook Catheter in the Treatment of Ureteral Calculi. *Journal of Urology*, vol. 13, p. 85, January 1925.

⁶ Manufactured by Wappler Electric Co. in New York City.



FIG 7A—Dr Leo Buerger of New York was good enough to permit me to use these interesting films in a successfully treated case. This figure shows the inflated bag after it was passed beyond the stone



FIG 7C—Same case Dilatation of ureter below the stone. The dilatation was so effective that with the use of the usual methods advocated by Dr Buerger, successful expulsion took place at a later date.

tion to almost any size that is desired, enabling the passage of large sized stones. The principle involved is the same as in the use of rubber bags for dilating the uterine cervix in labor, or the use of the bags for dilating oesophageal strictures



FIG 7B—Same case By bringing down the bag, actual dilatation of ureter was accomplished alongside of the stone

The method has not been hitherto used on human beings although experimentally it was used on animals by Illewitz.⁷ The detailed description of the device, its indication and technique, was pub-

lished in the *Journal of Urology*.⁸ Suffice it to say here that it consists of a rubber bag, made to fit the smallest author's tunneled bougie, or an all woven catheter made especially for this purpose by C R Bard, Inc, which is much smaller in calibre, more flexible and easier of introduction. When the bag is introduced into the ureter the distension of the bag is produced by injecting some opaque solution through the proximal end of the catheter-bougie so that roentgen ray shadows could be obtained, bringing out definitely the extent of dilatation and the relation of the distended bag to the stone. Air should not be used as it is impossible to determine the exact amount introduced on account of its compressibility and leakage. Although the number of cases in which the rubber bag was used is not sufficiently large to draw any definite conclusions as to all of its possibilities, I am inclined to believe from the results so far obtained, that in this device we have a valuable addition to the present methods of intra-ureteral manipulations for removing stones. The original report included six cases of stone in the ureter, all of them situated in the lower segment, most of them stubbornly impacted, resisting previous methods of treatment, in which expulsion of the stone followed dilatation of the ureter with the rubber bag. Since then the rubber bag was used on eight more cases with same results.

The device used in the earlier phase of this work consisted merely of a rubber bag covering the tip of a catheter and tied only at the proxi-

⁷ Illewitz, A B A New Method of Removal of Stones in the Ureter Preliminary Report *Surg Gyn and Obst* Vol 40 April 1925

⁸ Dourmashkin, R. L. Dilatation of the Ureter with Rubber Bags in the Treatment of Ureteral Calculi *Journal of Urology* Vol. xv p 449 May 1926



FIG. 8A—Impacted stone in lumbar portion of ureter and two stones in pelvis of kidney (three arrows)

mal end. Experimentally⁹ it was found that by inflating this bag, lateral dilatation could be produced only to a limited degree. The moment a certain point of the ureter distensibility was reached, the inflated bag would expand in the line of least resistance, that is, in the upward direction

place in a downward direction. This observation was corroborated clinically. In a few instances, the bag, after distending the ureter to a certain degree, would expand in a longitudinal direction and push the stone upward (Fig 4), sometimes for a considerable distance. A new rubber bag catheter (Fig 2) was then devised in which both ends of the bag were tied. On inflation, the entire force is directed only laterally, which makes this bag an ideal dilating agent. The new device is also provided with a filiform tip which renders its introduction into the ureter much easier. Ac-



FIG. 8C—Same case. Further descent of the stones following the above dilatation

knowledge is hereby made to Mr C R Bard and his associate, Mr J F Willits, for their tireless cooperation in this work.

The objection that is often raised to repeated cystoscopic manipulations is that they may result in infection. My own experience has taught me that kidney infection directly attributable to catheterization is comparatively rare. The patient may develop a severe constitutional reaction following intra-ureteral manipulation, but in such cases there was a pre-existing infection. On the contrary, abatement of infection and improved kidney drainage has resulted from passing catheters into the kidney, as in the majority of cases it was possible to pass by the obstruction. Many kidneys have been saved by this procedure. As has been stated before, the low percentage of kidney infection as an end result of ureteral obstruction was attributable to repeated instrumentation which resulted in better drainage. In many cases this was the factor which has decided in favor of continuance of the conservative measures. One should be able to manage the cases until the stone has been removed either



FIG. 8B—Same case. The ureteral stone has descended, following dilatation with a rubber bag, to a point 12 cm above the bladder. One of the pelvic stones "took a free ride" and both stones can be seen just above the inflated rubber bag.

When the ureter above the bag was tied by a ligature, recession of the inflated bag would take

* Acknowledgment is hereby made to Dr Benjamin Schwartz for his kind permission to use autopsy material in connection with this work.



FIG 8D—Same case. The stones are still lower down. The inflated rubber bag is seen just below them.

by operation or through cystoscopic route, without subjecting the kidney to real jeopardy, by constant surveillance and use of proper judgment in the possibilities of the case. The kid-



FIG 8E—Same case. Two days later. Stones in the intramural portion of ureter, ready to pop out.

neys have remarkable recuperative power, once the obstruction is removed, the return of its function to normal and spontaneous abatement of infection, unless accompanied by destruction of parenchyma is, as a rule, very rapid.

CONCLUSIONS

1 Kidney drainage is maintained by urine burrowing a linear groove or channel on the surface of the calculus in about 30 per cent of impacted ureteral stones.

2 Mulberry calculi, or those studded with spiculi, owe their configuration to urine burrowing its way to bladder all over the surface of stone. (These calculi were not considered in estimating the percentage of the above group.)

3 Attacks of renal colic are undoubtedly due to clogging of the grooves, thus producing acute retention.



FIG 8F—One kidney stone shown in Fig 8A still remains in the pelvis of the kidney.

4 The presence of an apparently hopelessly impacted stone in the lower ureteral segment, even for a considerable length of time, should not be viewed with undue alarm, if renal infection is excluded.

5 The principles laid down in management of ureteral calculi, in absence of kidney infection, are based upon the position of the stone.

6 Fifty-four per cent of stones impacted in upper part of ureter in this series of cases were removed by open operation, while 93.6 per cent of stones in lower part of ureter were amenable to removal by cystoscopic manipulation.

7 Ample dilatation of the ureter below obstructing stone is essential in attempting to remove the stone. This was produced by the author's tunneled bougie.

8 The rubber bag method in dilatation of ureter may prove to be a valuable aid in the treatment of ureteral stones.

A PLEA FOR THE MORE RATIONAL MANAGEMENT OF THE UNDER-NOURISHED CHILD*

By FRANK VAN DER BOGERT, M D, SCHENECTADY, N Y

THE management of the undernourished child is still a problem

The interpretation and clinical application of the more recent knowledge of nutrition have apparently failed to take into account two very important and, I think, unquestioned facts that the size of the individual is not an infallible index of his health and that it is not the amount of food ingested, however rich in essential constituents, which determines physical development

The real fault is the management of these children seems to lie in the effort, at least upon the part of the lay worker, to make all children conform to a weight and height standard, a standard which has been proven unreliable by several investigators including Dublin and Gebhart, who, corroborated by others, have shown that the use of the tables fails seriously in selecting the undernourished. From two-fifths to three-fourths of their series, though conforming to generally accepted standards of weight and height were shown upon careful physical examination to be defective. These observations point to a very real error in the direction of overlooking ill health in the child of so-called normal weight for height but may also be interpreted to mean that the result in gain of weight shown after high calorie feeding cannot in itself be considered as evidence of improvement. Furthermore, there are still some of us who believe that there are hereditary factors to be taken into account. Personally, I cannot but feel that the American child, a conglomerate of many racial stocks, must to a certain extent be influenced by inherited traits. Certainly biology teaches us that stature is inherited.

There is, of course, danger of laying too much stress upon the so-called family build, but it is unjust to brand its consideration as an attempt to establish an alibi to save the reputation of the doctor when he fails in his efforts to correct an undernourishment problem.

Owing to our desire to make all children conform to standard, the tendency has been to depend upon a method of management, the principles of which are unquestionably basically wrong, namely, that so far as diet is concerned, undernourishment is always primarily due to a deficiency in food intake and that food essentials swallowed in sufficient amount can prevent and remedy the defect. No better illustration of the fallacy of this belief can be cited than the result of the study of Xeroph-

themia and Keratomalacia by Block among the children of Norway during the war. Block found it impossible to explain the presence of the disturbances in all the cases upon the score of a deficiency of vitamin A in the diet alone. Codliver oil injected into the tissues caused disappearance of the xerosis. The conclusion was reached that xerophthalmia may arise both from an insufficient supply of the essential in the food and from conditions of the digestive tract which hinder assimilation of the factor.

What has been termed the newer knowledge of nutrition has caused so much stress to be laid upon food values and vitamin requirements that forced feeding has become the generally accepted method of treatment and little consideration has been paid to the ability of the digestive tract to do its part in conversion and assimilation. The trite but very apt analogy of the furnace has been forgotten and fuel that is absolutely unburnable is expected to produce heat and power. The efforts of the nutrition worker have resolved themselves into an attempt to force the estimated number of calories, vitamins and lime salts down the throats of their charges without respect to digestive capacity and often to the destruction of digestive functions. Tempting, coaxing, bribery and deception are resorted to with gain in weight as their only justification, a gain which is by no means always permanent and which in itself is not proof of nutritional improvement.

A standard which must have a far deeper appeal, it seems justifiable to suggest, would be one of general appearance of well being, accompanied or not by a so-called normal weight—height ratio. Such a standard should be practicable in school work and pre-school clinics and applicable by parents, teachers and social workers where thorough physical examination by physicians cannot be obtained. By far the best indices of health in childhood are what we are in the habit of calling "pep", interest in surroundings, whether work or play, lack of tendency to early fatigue, color of skin and mucus membranes, appetite and, above all, a good disposition. Indeed, if one wishes to depend upon a single symptom he will do well to choose the disposition, the reaction to environment. Its improvement, under treatment, means infinitely more than a gain in weight and will invariably be followed by such a gain if the individual is actually below standard. The term "spoil" implies lack of restraint in those things which influence health and nutri-

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York March 31, 1926

tion The spoiled child is, therefore, in most instances a sick child

A steady increase in body development is, of course, to be desired, but unless accompanied by other evidences of improving health the hope of race betterment can never become a realization

The previous histories of severe and distressing cases, severe enough in themselves and distressing enough to the parents to encourage the consultation of a pediatricist, should, it seems, convince the advocate of forced feeding that it is not more food but less that is required These unhappy youngsters have practically all been overfed in their earlier life, their desire for normal food is gone and it is only by pampering and deception that they can be encouraged to eat at all I have been told of a child of about two years who was fed salt herring by its mother in order to get it to drink the amount of milk advocated by the United States Department of Labor and of another whose mother buried a piece of sugar in its baked potato to encourage its consumption I have seen children bribed, tempted, coaxed and even threatened into taking food which they knew instinctively they could not digest I have been told of soft boiled eggs refused yet greedily taken when beaten up with milk and sugar, and I have seen a child of two still being allowed the bottle between meals although apparently consuming plenty of general diet because the mother thought she ought to have the milk and it was the only way that she could get it down

Many as infants have been kept at breast or bottle well into the second or third year, evidence of parental weakness and of the general lack of discipline and restraint Most of them, because of their parents encouraged belief in the life saving qualities of milk have been allowed or encouraged to consume quantities at all times and in all places or have been forced to swallow the amount specified as that which they "should" or "must take in order to obtain sufficient salts and vitamins" and thus at the expense of the appetite for digestion developing foods Quarts of milk are being consumed, egg-nogs swallowed, school lunches served, but, despite the rise of the weight curve if such occurs, the children have remained or have become more unhappy, irritable, generally distressed, pale and languid More milk, more lunches, more tempting and palatable food increase the general discomfort but the effect of reduction of the quantity of food at meals, the elimination of between meals feeding and the absolute ignoring of likes and dislikes will, if persisted in, bring about a change which must convince the most skeptical Almost certainly a loss of weight ensues but the loss is in most cases promptly re-

covered from with an accompanying improvement in the general physical condition It can be safely stated as almost an axiom that food which is not relished is not digested, that a desire for food is essential for the conversion of that food into healthy tissue It seems then that our first care should be for the efficiency of the digestive apparatus, manifested by an appetite for wholesome, unadorned food

There is reason to believe that in late infancy the development of the digestive tract should be carefully encouraged, that food should be given in a form which, though readily digestible requires a certain effort on the part of the child to assimilate it The dangers of prolonged feeding with sloppy food have been demonstrated experimentally with puppies and the effect of prolonged nursing and of long continued bottle feeding illustrate the danger of pampering the digestive tract of the child Children thus fed, do not develop normally, their tissues are flabby, their color bad, and they lack resistance to disease The eruption of the teeth, may, I think, be taken as an indication that the digestive tract has developed to a point where it can make its own emulsions and for this reason I believe with Sim Wallace that the amount of milk at this period should be lessened rather than increased and that the teeth and stomach should be given their work to do At this time, increase of the feeding interval allows for better recuperation of the digestive organs If the feeding interval has been long enough one can feel assured that hunger is real

With proper feeding on a general mixed diet, milk as a vitamin or lime carrier is, I think, not essential Milk is a food prepared by nature for the undeveloped alimentary tract of the infant and in later years development must be normally stimulated Small quantities of milk with the meals are probably beneficial, large quantities, I believe are deleterious Milk is not a necessity to the older child, vitamins and lime salts are supplied elsewhere No animal in its natural existence obtains milk after leaving the mother's breast No one would question the vigor of a lion or tiger in the wild and an elephant develops a tusk two to ten feet long

In order to deal intelligently with the undernourishment problem there must be a fuller appreciation of the fact that undernourishment is not always due to underfeeding, indeed that it is rarely due to underfeeding in the generally accepted meaning of the term and that in most cases ignorance rather than poverty is the underlying cause My own experience has been and my practice is certainly not limited to the rich that overfeeding and irregular eating are practically always responsible and these errors must be combated by another form of

education than is given parents today. Whether it is our fault or theirs, most of them believe that all they need do is to serve more vitamins and calories. They should, of course, be made to appreciate food values and the essential constituents of a balanced diet but in addition they should be taught the necessity of safeguarding the digestion, the dangers of too frequent feeding and of sweet eating, the need of digestive rest and the elimination of waste products and the distinction between the two types of hunger. No matter what the social status of the patient, the history is nearly always the same, irregular, frequent feeding in infancy, the giving of food for the relief of distress or discomfort from almost any cause, consequent failure of appetite manifesting a wrecked digestion, and loss of weight treated by forcing, urging, tempting and bribery. These children have become sweet eaters and even coffee and tea drinkers because of the mistaken idea of the parents that any food is better than none.

Instead of the addition to an already excessive daily ration of more vitamins and salt containing foods the ideal would be a period of almost absolute starvation to relieve the digestive tract temporarily of its burden and to allow recuperation. In practice, however, the absolute withdrawal of food is unnecessary because of the child's refusal for a time to accept the changed condition. With proper control they are soon glad to get and willing to consume the vitamins and salt containing foods which the body requires. Gain in weight produced by such methods must be permanent, the gain of forced feeding is likely to be temporary.

My conception of the proper treatment of the undernourished child is to feed him as you feed a good horse or dog and I believe this to be the best preventive measure and therefore the best feeding method in childhood. Put the oats in the manger and let him take or leave them. No one would consider for a moment, sweetening a horse's oats with sugar in order to make him take them. At a recent "Better Food Demonstration" held by the State Teacher's College in Michigan a poster which apparently created some interest read "Use horse sense, eat oatmeal." More practical ad-

vice might be "Use horseman's sense, feed oats without sugar." A healthy appetite needs no tempting. Government through fear, as Judge Lindsay expresses it, produces the impulse to do the other thing.

My plea is for the appetite cure which Mark Twain has called "The Best and Wisest in the World." His advice was sound "Don't eat until you are hungry, if the food fails to taste good, fails to satisfy you, rejoice you, comfort you, don't you eat again until you are very hungry, then it will rejoice you and do you good too."

Criticism to be of value should be constructive. My suggestion for a scheme applicable to groups would be to consider all children undernourished, irrespective of weight or height, whose general appearance and attitude toward life do not give the impression of perfect health and comfort. Investigate home conditions and educate. Forced feeding and between meals luncheons have no place in such a scheme. If food is needed the place for its consumption is in the home and with the meals. Dietetic knowledge given to the laity should not be limited to the nutritive content of food stuffs, though I recognize fully the importance of such teaching. To be effective it must include an understandable portion of the physiology of digestion, stressing the point that assimilation is essential to nourishment. Supply more and better food to children in the home, at community expense if need be, but don't run the risk of ruining appetite and digestion by the school lunch. Most of those who get it don't need it and those who do don't need it when they get it.

Twenty-five years of experience with these problems has convinced me that what these children need is not more food but less, less effort to cause simple consumption of calories and vitamins, more sympathy for the digestive organs, less desire for size, more desire for health. In private work, I am sure, the elimination of between meals feeding, of tempting and coaxing, absolute ignoring of likes and dislikes will result in an appetite and digestion most efficient in the production of what we call health.

LADIN'S SIGN OF EARLY PREGNANCY—A POSITIVE SIGN OF PREGNANCY*

By DAVID W TOVEY, MD, F.A.C.S, NEW YORK

WHEN I first became a member of the staff of Brooks H Wells at the New York Polyclinic in 1903, he was teaching the students to diagnose pregnancy as early as the fifth and sixth weeks. He did this by Ladin's signs of pregnancy. Wells and Ladin had been associated on the staff of Paul Munde. Ladin discovered his sign working in Munde's clinic years before.

Vanderveer in 1887 (1) collected 75 abdominal sections by the world's greatest surgeons and gynecologists in which pregnancy was unsuspected. This shows the difficulty in diagnosing pregnancy at that time.

SIGNS OF PREGNANCY

The suppression of menses is of little value in the diagnosis of early pregnancy, as fear, chilling, anaemia, change of climate, early menopause will cause a cessation. Winfield Ney (2) has called attention to sexual infantilism, acromegaly in young women and tumors affecting the hypophysis cerebri as a cause of complete amenorrhoea. On the other hand uterine bleeding every month does not preclude pregnancy. In the first two months of pregnancy women often have a slight bloody discharge at the usual time of the menses which they speak of as menstruation, and pregnancy may occur during lactation.

VAGINAL SIGNS

Jacquenin's spot (3), a bluish spot two cm below the urethral meatus, on the anterior vaginal wall, is rarely present before the third month. So also the bluish color or blush of the cervix. Softening of the cervix, the sign most often spoken of, is rarely present before the third month. Changes in the cervix may prevent it entirely. The signs are unreliable.

FLEXIBILITY OF THE ISTHMUS-McDONALD'S SIGN

McDonald says, "to obtain his sign conditions must be ideal." It is important that no contraction of the uterus is occurring, as the uterus must be in a state of relaxation. (McDonald's *Journal of Obstet*, 1907). As the uterus is stimulated to contract by the examining fingers I have found it difficult to get this sign before the third month.

HEGAR'S SIGN (4), FIGURE 1

Softening and compressibility of the lower segment of the uterus is a valuable sign. This is not found before the ninth to twelfth week, as in the early weeks, five to eight, the uterus

is more contractile and irritable than later when the tissue is softer and the muscle flabbier. To get Hegar's signs it is necessary to press in the abdominal wall so that the uterine isthmus is between the abdominal and vaginal fingers. This is very difficult in young women and requires an expert in vaginal palpitation. Irregularity and asymmetrical enlargement of the uterus described by Dickerson (*Journal of Obstet* 1892) is the cause of errors in diagnosis, the pregnant uterus being mistaken for fibroids. This sign is not a help in the diagnosis of early pregnancy. One should remember that it occurs, to prevent mistakes in diagnosis.

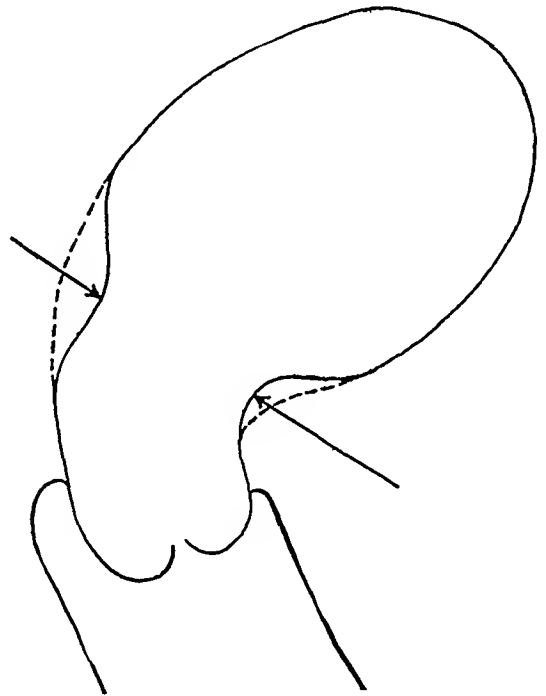


FIG. 1—Hegar's Sign

THE JUG SIGN

This sign, in which the uterus is likened to the bulging part of a jug, the cervix to the sprout. To get this sign, see Figures 2 and 3.

Counter pressure is made above, fixing the uterus. With first and second fingers in lateral fornices, the lateral borders of the uterus are palpated. The normal uterus is pear-shaped and more or less triangular. The lateral borders gradually extend up to the uterine cornu. In pregnancy they are felt to be rounded and bulging like the sides of a jug, above the spout, the cervix. The change in the shape of the uterus, occurs early and when found is of value, in conjunction with Ladin's sign.

* Read before the Polyclinic Medical Society, December 7, 1925

LADIN'S SIGN (5)

An elastic area just above the internal os. It is well to remember that the uterus is often more flexed, in early pregnancy, due to the softening of the isthmus. The change described by Ladin is invariably found in early uterine pregnancy and is the only constant sign. It consists in a circular elastic area situated in the median line of the anterior surface of the body of the uterus just above the junction of the body and the cervix, that is to say, it is at the isthmus of the uterus which varies in size according to the duration of pregnancy and offers to the palpating finger the distinct sensation of fluctuation. It can be made out as early as the fifth week, when the area is the size of a finger tip and can always be felt in the sixth week when it is larger. As pregnancy advances the area increases in size in a crescentic manner and extends upward towards the fundus until the third month of pregnancy when nearly the entire anterior body of the uterus pre-

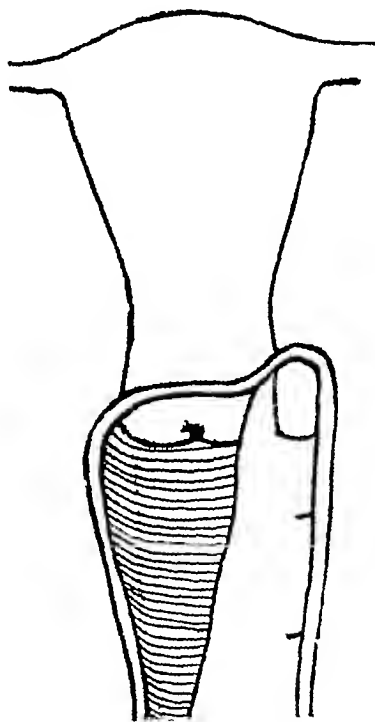


FIG. 2—Normal Uterus

sents a fluctuating cystic feel to the examining finger. The change in the consistency is observed on the anterior wall when the pregnant uterus is in the normal position or slightly anteverted, in retroverted or retroflexed uteri the elastic area is found on the posterior wall.

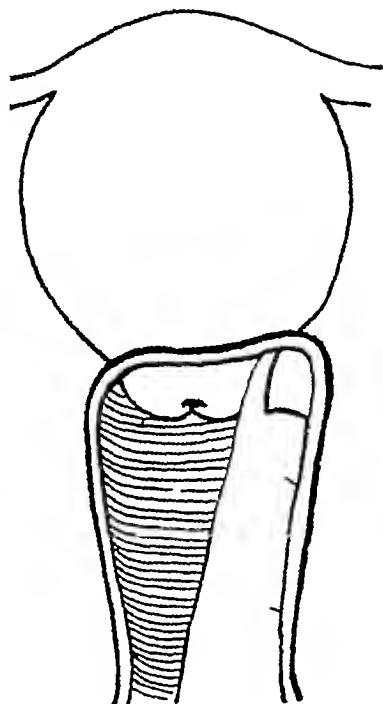


FIG. 3—Jug Sign

METHOD OF ELICITING LADIN'S SIGN FIGURES 4 AND 5

While the uterus is fixed by counter pressure by the external hand, the anterior wall of the uterus, from the cervix to the fundus is palpated by the vaginal fingers and if pregnancy exists the elastic fluctuating area will be felt in the median line of the body of the uterus immediately above the internal os. No special skill is required to recognize this elastic area. I am able to demonstrate it to students at the Polyclinic Hospital at the first examination. The sign is invariably present in early pregnancy, absence of this sign is an absolute indication for the exclusion of uterine pregnancy. Soft myoma or cystic fibroid, situated in the anterior wall of the uterus, is the only condition in which this sign is not diagnostic of pregnancy. Differential diagnosis is made in these cases by the uterus not enlarging.

DIFFERENTIAL DIAGNOSIS OF THREATENED, INEVITABLE AND COMPLETE ABORTION

In cases of early pregnancy with symptoms of threatened abortion, the area in the isthmus remains cystic and elastic so long as the ovum is viable, but become soft, doughy, and compressible as soon as the ovum is no longer viable—that is to say in incomplete abortion. Furthermore in sub-involution following abortion a change in the consistency of a similar area is also manifest. Here again the feel is soft and doughy instead of the elastic cystic feel of pregnancy or threatened abortion.

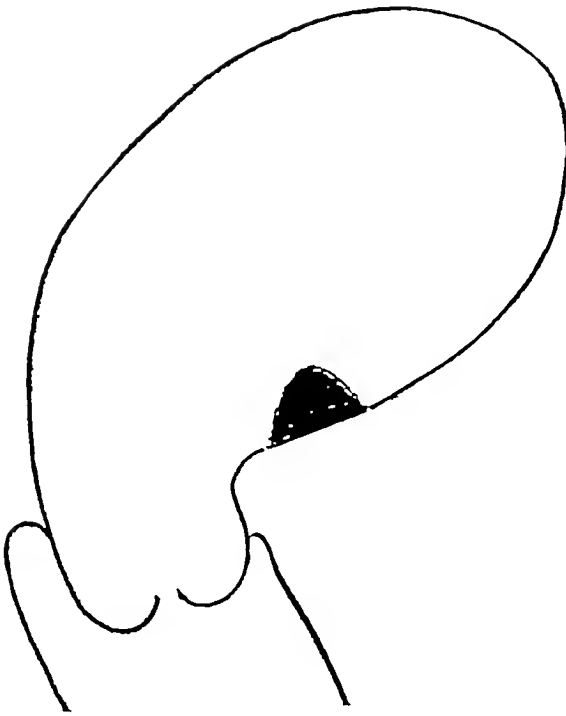


FIG 4—Ladin's Sign, Lateral

DIFFERENTIAL DIAGNOSIS IN UTERINE AND EXTRA-UTERINE PREGNANCY

The one condition from which ectopic pregnancy must most frequently be differentiated is uterine pregnancy. Confirming a diagnosis of uterine pregnancy will at once preclude the possible presence of ectopic gestation and vice versa. The absence of uterine pregnancy will presume the presence of ectopic pregnancy. Ladin's sign is due to a hypertrophy involving the muscular fibers, connective tissue, and especially the vascular lymphatic structures of the uterus. These changes take place in the whole uterus but are most marked and occur earliest in the isthmus. Care should be taken in eliciting Ladin's signs to wait until the contractions of the uterus caused by stimulation of the examining fingers have ceased. I believe in cases in which we are not able to get the sign on first examination, there is intense contractions of the uterus caused by the examining finger. When the patient comes for the next examination the sign is easily found. When I first was testing the sign in the old Polyclinic I examined a very young woman Brooks Wells came into the room just as I finished. I said, "Wells, this girl thinks she may be pregnant, but she is not." Wells examined her and said, "Examine her again, Tovey, she is about six weeks pregnant." The area that felt hard to me a few minutes before was cystic and elastic. My fingers on first examination had stimulated a contraction of the uterus. Some years ago a sister of a prominent

member of the Polyclinic staff was taken, after skipping four weeks, with spotting and severe pain in the right ovarian region accompanied by faintness. As she was to go to the country in a day or so it was necessary to rule out ectopic pregnancy. Examination showed the uterus to be slightly enlarged but Ladin's sign could not be felt. She was very tender in the right ovarian region and very nervous. Examination under ether, Ladin's sign was easily felt, a diagnosis of pregnancy was made and the patient went to the country. Contractions of the uterus in a neurotic woman prevented getting the sign at the first examination.

Corpus luteum cysts are frequently mistaken for ectopic pregnancy. The symptoms of corpus luteum cysts are almost identical with ectopic and at times it is difficult to differentiate.

In one case I made a diagnosis of corpus luteum cyst but told the woman she might have

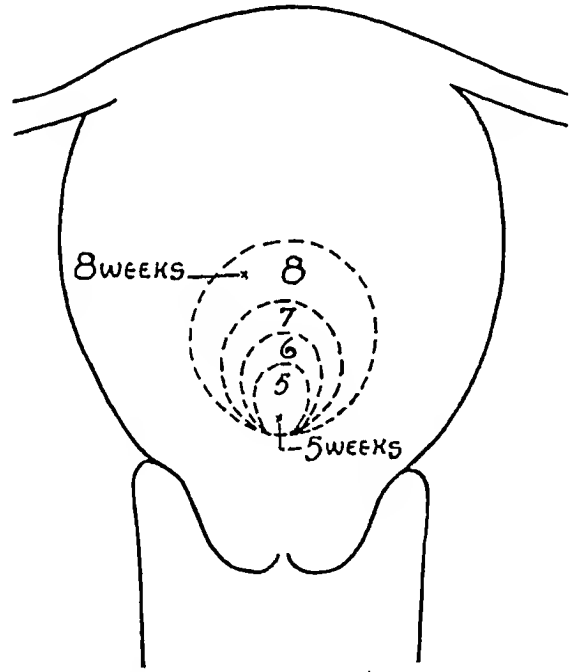


FIG 5—Ladin's Sign, Anterior

an ectopic. She was a single girl. I operated and found an unruptured ectopic with a small nodule in the tube about the size of a pea. Dr. Losee examined it and found it to contain blood clot and chorionic villi.

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INFLUENZAL CROUP*

By EDWARD L BENJAMIN, M.D., NEW YORK

DURING the past winter while influenza was rampant, I had occasion to observe a number of cases of influenzal croup, and I've selected three such cases that demonstrate, more or less definitely, the course in almost all of them

There is no doubt that influenzal croup is an entity and that it is characterized by definite symptoms and a definite clinical course. All the cases observed and especially those reported here, gave a history of exposure to gripe, followed by the symptoms of laryngeal stenosis of croup after several days' illness.

The first case was that of a child four years of age with no previous illness. The onset was sudden with fever, general malaise and cough. Examination of this child revealed a naso-pharyngitis and bronchitis with a slight congestion of both ears.

On the fourth day of the illness the child suddenly developed dyspnoea which was slight at first. After a few hours this dyspnoea increased in intensity until marked retraction of the upper and lower chest, stertorous breathing, cyanosis of the face and profuse sweating developed. The child presented the typical picture of one with a laryngeal stenosis of croup. These attacks continued irregularly for two days, the actual spasms lasting from two to ten minutes and often accompanied by absence of any pulse. The child received thirty thousand units of diphtheria antitoxin during this siege on the supposition that I was dealing with a case of laryngeal diphtheria. Repeated cultures of the nose and throat were negative for diphtheria, but showed mostly B. Influenza with few Pneumococci and M. Catarrhalis.

The spasms of laryngeal obstruction lasted two days, during which time the temperature ranged from 101° to 103.4°. The child did not improve or show any reaction following the administration of diphtheria antitoxin, but responded wonderfully well to full doses of morphine and atropine and steam inhalations of cod. benzoin with spt of camphor and eucalyptol and adrenalin (1 to 1000). Examination of chest revealed the presence of many dry rales all over the chest with a preponderance of sibilant and sonorous rales. Tonsils and larynx were free of any membrane, but the mucus membrane of the mouth and throat showed a peculiar red and dry appearance as opposed to the moist appearance of the mucus membrane in true diphtheritic croup. This child was quite exhausted following these at-

tacks and after stimulation for several days fully recovered.

The second case was that of a child nine years of age, whose history showed that it had had frequent attacks of bronchitis. No other illness. This child was taken ill suddenly with nausea, vomiting, headache, fever and cough. The temperature ranged from 101.6° to 103° for eight days before the onset of the symptoms of laryngeal stenosis. On the eighth day of the illness he suddenly developed dyspnoea, which became more severe as it progressed. On the eleventh day of his illness, the picture was complete—the dyspnoea had developed rapidly into that of one in laryngeal spasm of croup, with the accompanying cyanosis, loud breathing and retraction of the chest. During one of his spasms he became so cyanosed that I was ready to do a tracheotomy. But fortunately the morphine and atropine and adrenalin along with the steam inhalations controlled the attack.

These spasms continued for five days, when they gradually became less intense and disappeared entirely. In this case also nose and throat cultures repeatedly were negative for diphtheria, but showed the presence of B. Influenza.

This child also received thirty thousand units of diphtheria antitoxin, but it was quite apparent that he did not respond to this—i.e., as far as the spasms were concerned—but definitely responded to the morphine and atropine injections.

The case was complicated further with an otitis media for about a week, after which the child fully recovered.

The third case was that of a child, six years of age, with a past history of measles, pneumonia, pertussis and diphtheria. Onset was similar to that of the other two cases—the child was ill for three days with headache, cough, general malaise and pains in limbs—with the spasms occurring on the third day and continuing for two days.

The spasms of laryngeal obstruction in this case were not so severe but appeared to be to the mother—since she swooned with nearly every attack the child had. On the fifth day of his illness, while the intensity of the spasms were gradually decreasing, this child had a severe nose bleed which lasted several hours. Repeated cultures of nose and throat of this case up to the twelfth day of his illness were negative for diphtheria. Twenty thousand units of antitoxin were injected as a precautionary measure, however. The child recovered and showed no ill effects as the result of the spasms.

* Read before the Lebanon Hospital Alumni Association
March 1926

It is to be noted that in all of the cases the onset was the same—the clinical course of influenza for a few days, followed by the appearance of the symptoms of croup. In the first two cases, the spleen and liver were palpable until the end of the illness. A blood examination in the first case showed RBC = 4,145,000 WBC = 5,500 (leukopenia), P 86, L 14 and Hgb 65 per cent.

CONCLUSION

1 Owing to the difficulty in making an immediate and definite differential diagnosis from laryngeal diphtheria or true croup, it is best to administer diphtheria antitoxin first and question the cultures afterwards.

2 These cases did not show any membrane at any time.

3 Antitoxin while administered early and in sufficient quantities did not have any effect on the spasms.

4 Injections of adrenalin (1 to 1000) morphine and atropine and the steam inhalations seemed to affect the spasms definitely and reduce the oedema causing them.

5 The condition—influenzal croup—is well defined and is more common than we suspect during an epidemic of influenza.

6 The prognosis is generally good if treatment is instituted early and properly and no complications occur.

THE SIGNIFICANCE OF HEMATURIA

By A STRACHSTEIN, M.D., NEW YORK

IT cannot be emphasized too frequently nor too emphatically that the fate of the individual affected with hematuria largely depends upon an early diagnosis of his condition. Unfortunately, this is not universally recognized for, practitioners are still met with who deal with hematuria as an inconsequential symptom, thus losing valuable time which frequently not only jeopardizes vital organs, but also the very life of the patient.

In reviewing a series of cases in which hematuria was the dominant symptom, our observations concur with those of others (1) who state that hematuria should be looked upon as a symptom of serious import. While in a large number of cases hematuria was found to be due to malignant disease, in a number of other instances it has indicated the presence of a condition which, while not malignant, would probably lead to the ultimate destruction of the organ involved, and in some instances to the loss of the life of the patient as well.

Hematuria, with very few exceptions, means the presence of organic disease in the urinary tract, and its importance should not be underestimated or belittled. (2) Because of its frequently painless nature, the patient is often treated for months, and in some instances for years, without seeking the aid of the urologist who could in most cases, determine the cause, thereby making it possible to apply timely and proper remedial agencies.

The most frequent type of unrecognized hematuria is that observed in young adults suffering from renal tuberculosis. In this group, failure of an early diagnosis leads to not only destruction of the primary involved kidney, but

eventually to extensive vesical involvement and to an ascending infection of the opposite kidney, which could otherwise be saved.

It is very generally accepted that renal tuberculosis is unilateral in the earlier stages. It subsequently becomes bilateral when considerable time is allowed to elapse after the appearance of the first warnings. Kronlein (3) states that 92 per cent and Legueu (4) 85 per cent of the cases are unilateral. On the other hand, cases that are allowed to go on for some time unrecognized, eventually become bilateral.

The following two cases will illustrate how a timely and proper examination would have entirely altered the chances for a complete recovery.

CASE 1—N. C. male, age 19, came under my observation in 1924.

Previous history negative except for polymyositis in childhood.

Present history. One year ago, he insidiously developed frequency of urination which very gradually grew progressively worse. He soon began to notice bloody urine, and ten months ago he had a severe attack of hematuria. Ever since then, his urine was never entirely free from blood. Was treated until now with bladder irrigations.

Cystoscopic Examination. Bladder urine appears pale, cloudy and admixed with blood. Bladder is extremely sensitive and shows a diffuse cystitis, especially along the left ureter orifice.

Ureteral catheterized specimens of urine show pus and tubercle bacilli from left side, and a moderate amount of pus but no tubercle bacilli microscopically from the right side.

Guinea-pig injections reveals the presence of tubercle bacilli in the specimen from the right side as well.

CASE 2—J P male, age 33

Previous history Spinal meningitis in childhood

Present history Eighteen months ago developed gradual frequency of urination which slowly grew progressively worse. A few weeks after onset of frequency he noticed bloody urine and frequently passed blood clots. Ever since then, the hematuria was of frequent occurrence. Treated until recently for cystitis.

Cystoscopic examination without anesthesia at the present time is impossible, owing to the extreme irritability of the bladder. A voided specimen of urine shows much pus, blood, and loaded with tubercle bacilli.

No comments are necessary as to what an early urological examination would have done for these two patients.

The next important group is the one in which the hematuria is due to a vesicle tumor. There are many competent pathologists who hold that all bladder tumors either are malignant, or eventually become so.

Of course, clinically we have all had cases of vesical pedunculated papillomatous growths that disappear under Beer's fulguration. The absence of their reappearance is perhaps largely due to the early recognition and treatment. Here too, one can readily conceive of the harm done by the neglect or delay of an early diagnosis. The harm

lies not only in the failure of an early diagnosis, but also in the fact that ultimate extensive involvement makes it impractical to resort to fulguration since a proper application of this method would again consume several weeks of time which the patient at this late hour, can ill afford to lose. Yet cases of this sort are met with that are being treated for nephritis, although it is admitted that nephritis occasionally is a sole cause for hematuria.

Still another common group of cases are the quiescent renal calculi. Frequently recurring hematuria may be the dominant symptom. Failure of an early recognition tends to calculous pyonephrosis with ultimate complete loss of function of the involved kidney.

Of course, it is not intended in this paper to deal with the very many possible causes of hematuria. The real purpose is to sound a word of warning that the more common cases of persistent hematuria is of serious import and should not be dealt with lightly. An early urologic examination and diagnosis will very frequently mean saving of the patient's life, if not the affected organ.

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MAXILLARY AND SPHENOIDAL SINUSITIS IN CHILDREN*

By WILLIAM ANDREW KRIEGER, M.D., F.A.C.S., POUGHKEEPSIE, N. Y.

IT is the firm belief of many investigators that certain constitutional disorders have been caused by suppurative disease of the paranasal sinuses. Some of these constitutional disorders can often be traced to childhood when sinus disease began.

It is quite impossible to deal with maxillary and sphenoidal sinusitis without a consideration of the ethmoidal and frontal sinuses, neither is it possible to deal with these two sinuses exhaustively, as time would not permit and most of the important features have been covered by men who are authorities on these subjects. I therefore, shall confine myself in this paper, to the presentation of a few facts of diagnosis and treatment in the ambulatory and semi-ambulatory cases that have occurred in my private practice. The late cases requiring major surgery will not be considered.

The anatomy and development of these sinuses and the neighboring structures must be constantly kept in mind. The fact that the maxillary sinus and the development of the nasal wall can not be considered in the adult

stage until after the fifteenth year is of great importance. According to Schaeffer, the sphenoid becomes the primitive sphenoidal sinus during the fourth year, and previously, that is, up to the end of the third year the rudiment of the sphenoidal sinus is surrounded by bone, except ventrally toward the nasal fossa, where an opening exists. The mucosa of the sinuses is directly continuous with that of the nasal fossa. Owing to the looseness of the tissue about the ostia of the sinuses, the mucosa is especially prone to swelling and thickening. The lymphatics are also directly connected with those of the nasal mucosa.

Infection of the maxillary and sphenoidal sinuses is much more frequent than is commonly believed by many internists and pediatricians. In children, many cases of acute illness with headache, fever, loss of appetite and vomiting, and in some cases leucocytosis, are found to be suppurative sinus disease, when examined carefully. Then there is the group of cases that are apparently well. The parents give a history of the child having an upset stomach and feverish one day and normal the next few days, with a recurrence of these

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

It is to be noted that in all of the cases the onset was the same—the clinical course of influenza for a few days, followed by the appearance of the symptoms of croup. In the first two cases, the spleen and liver were palpable until the end of the illness. A blood examination in the first case showed RBC = 4,145,000 WBC = 5,500 (leukopenia), P 86, L 14 and Hgb 65 per cent.

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THE DISTRICT BRANCH MEETINGS

The attention of the members of the Medical Society of the State of New York is called to the meetings of the District Branches, a list of which was published in this Journal on August first. The program of the Third District Branch is printed on page 762 of this Journal, and those of the other districts will be published as soon as they are received.

Plans are made for reporting the meetings in this Journal promptly.

The District Branch meetings will afford the opportunity for the county officers to meet the representatives of the Journal and give them the news and impressions from their home societies. One great object of this Journal is to provide a medium for the dissemination of news regarding the county societies. The officers of the county societies are expected to attend the District meetings, and both bring and take away medical news of mutual helpfulness.

symptoms at intervals. Or they may consult you to see whether the child has a return of adenoids because there seems to be a recurrence of cough and difficult breathing, a condition similar to that before the adenoids were removed. These cases on careful examination, after shrinking the nasal mucosa thoroughly, will almost invariably show discharge posteriorly from the sphenoid area and also from the middle fossa. If no discharge presents itself, it can frequently be obtained by the application of a small suction tip to the sphenoid area and the middle fossa.

In the diagnosis of sphenoidal sinusitis, the ophthalmoscope, to my mind, is invaluable. In the vast majority of my cases, I have found a definite edema over the superior nasal quadrant of the optic disc and frequently some edema of the entire disc. The amount of edema apparently has a definite relation to the amount of sphenoidal drainage. This is a very important diagnostic sign, especially so where it is almost impossible to make a careful nasal examination of the child. It is also an excellent guide to the progress of the disease, as it is interesting to see this edema disappear as soon as adequate drainage is established. If the symptom is watched carefully and proper treatment instituted there is no loss of vision, but if these cases are unrecognized and an optic neuritis occurs, of course, there is a very definite diminution of vision. Although X-ray has an important place in the diagnosis of sinus conditions, it is hardly necessary to discuss it in this paper.

Arbuckle states that in the St. Louis Children's Hospital and in private practice he has well authenticated cases of cardiac disease, nephritis, arthritis, bronchitis, erysipelas and psychoneurosis in which the cause apparently was suppurative disease of the paranasal sinuses. He further alludes to Birk's description of Czerny's exudative diathesis as remarkably similar to that of the condition found in infants who have suppurative disease in the nasal sinuses. Chorea with heart involvement has frequently been successfully combatted by treating an existing paranasal sinus infection. Herpes zoster over the first division of the fifth nerve has been found by Arbuckle to accompany acute suppurative disease of the sphenoid. Arbuckle quotes Marriot as stating that one of the most frequent and most serious of the systemic manifestations of sinus disease in children is acute parenchymatous nephritis.

According to Dean, phlyctenular conjunctivitis, iritis, retrobulbar neuritis and choroiditis are frequently very definitely associated with sinus infection. He also calls attention to a very possible relation between chronic multiple infectious arthritis and paranasal sinus

disease in infants and young children, also to the fact that the absorption of bacterial protein from an infection of the sinus may be an etiological factor in the causation of asthma in children, a theory advanced by Byfield and others. Dean further states "that any condition in infants and young children that may result from a focus of infection may be caused by sinus disease and that chronic sinus infections produce listlessness, poor color, underweight, poor appetite and certain cases of cyclic vomiting, in other words, the conditions which are commonly supposed to be due to tonsils and adenoids."

The fact that we are dealing with a mucous membrane which is to have a highly specialized function throughout the life of the individual, must never fail our consideration. In order to prevent the more radical operations we must see these cases early and have the complete co-operation of the pediatrician and internist. Most of the pathogenic bacteria found in the nose produce an acid reaction when grown on artificial media, they also have this tendency when growing in the nose. When this acidity becomes excessive it devitalizes the tissues and renders them more susceptible to secondary infection and toxic absorption. In my cases, I have had the most satisfactory results with thorough cleansing of the nasal cavities followed by alkaline solutions of varying strength, rather than with strong antiseptics or solutions that in any way irritate the mucosa. The suction is of great importance as it can be applied without a general anæsthetic and in most cases the sphenoid ostium can be reached with a flexible curved tip. Sufficient discharge can be removed to relieve pressure and establish drainage with little, if any danger to the patient. Owing to the formation of the nasal wall, the maxillary sinus can be reached and treated in a similar way without danger to the teeth or to the orbit. After the nasal cavities and sinuses have been cleansed as thoroughly as possible, I have found the Kromayer lamp an invaluable adjunct. With the variation of tips the light can be applied to any nasal cavity. It is not painful and after one or two applications the child rather enjoys it. In my cases it has produced a very definite beneficial effect, apparently having a marked bacteriacidal action where the rays come in contact with the bacteria.

In conclusion, let me impress upon you the ophthalmoscope and suction as a means to diagnosis, the suction, alkalinization and Kromayer lamp as treatment. The interdependence of the eye and the nose is too often overlooked or discounted as a secondary consideration. But let me say that to consider one without the other is to make but half a diagnosis.

LITERATURE ON THE COUNTY MEDICAL SOCIETY

There is only a meager amount of literature on the subject of the County Medical Society. The State Medical Journals are almost the only repositories of literature concerning the county societies. State societies have their journals. The A M A has one of the greatest medical journals in the world, and the societies of specialists publish their own organs, but the fundamental society of them all—the County Medical Society—receives little attention in literature.

Most state journals try to publish the proceedings of their County Medical Societies, but the literature can hardly be called inspiring. THE NEW YORK STATE JOURNAL OF MEDICINE publishes reports of the meetings of only about one-half of the societies—the proceedings of the others, equally good perhaps, or better remain unknown except to those who attend them, and this faithful group has no means of preserving their record for future reference.

Besides the records of the meetings printed in the state journals, almost the only other record is that contained in footnotes appended to scientific papers stating that they were read before a County Medical Society, and only a small minority of papers are so labelled, for the most of them are read before other societies.

Why does the County Society not receive more recognition in medical literature? One reason is that the local leaders do not send

the news about their societies. The state journals offer their space, and only half the societies accept it. Space in a state journal has a value which the County Societies have been slow to capitalize.

The leaders of State Societies may sometimes fail to bring their journals to the attention of the county societies, and the members of the local societies then fail to realize the value of the publicity. It pays the State Medical Society to advertise the advantages that will accrue to the County Society through publicity of its proceedings.

THE NEW YORK STATE JOURNAL OF MEDICINE urges the leaders of the County Societies to set a higher standard in the amount and quality of the literature regarding their organizations. Every assistance will be given to the writers to make their reports worthy of permanent preservation.

A problem which confronts the Secretaries' Association of New York State is the standardization of methods and activities. The first step in that unification is the collection of records of what the County Societies are doing. The State Journal should be the natural source of that information. Surely, there is in every society some member who is willing to send the news of his society to the Journal. The New Jersey plan of having a reporter in each society is worthy of trial in New York State.

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

Bovine Tuberculosis—Twenty-five years ago physicians disagreed regarding the relation of bovine tuberculosis to the human type of the disease. Professor Koch argued that man could not be infected with the bovine germs. He seems to have found adult persons immune to infection with the germs of bovine tuberculosis, but it is now well known that children may be infected readily.

This Journal of September, 1901, contains the following editorial on the subject:

"Prof. Koch on Tuberculosis—One of the most encouraging signs of the times is the widespread interest in medical topics among the laity as indicated by the amount of space devoted to them in the public press, and the increasing accuracy of the reports. Under such circumstances the recent declarations of Koch, at the British Congress on Tuberculosis, excited widespread interest. Briefly, his opinions, based on a rather short course of experiment, are these: That bovine tuberculosis and human tuberculosis are radically different diseases, and that cattle cannot be infected from

human beings. Of the converse, that human beings cannot be infected from animals, he could of course produce no experimental proof but he declared himself convinced, and cited in support of his conclusions a good many facts of common observation. Of course, if these views are correct, all the money spent by the public to restrict the spread of animal tuberculosis has been largely wasted. It is a pity that a man whose opinion carries such public weight should make such definite statements without a far greater amount of experimental proof, and we are glad to see that this was the position taken by the conservative judgment of the congress. The proof of a negative proposition should always be subject to careful scrutiny. At the same time, we think that only good can come from the widespread publication of the fact so reiterated at the congress, that consumption is chiefly propagated through the sputum. We can also enjoy the many complimentary notices by Koch and others of the great advances made in this country in the public control of tuberculosis."

OPPORTUNITIES OF THE DISTRICT BRANCHES

The three or four weeks beginning with the middle of September is the time when most of the District Branches of the Medical Society of New York State hold their annual meetings. The District Branches are laid out along geographic lines so as to enable the members to get together readily and discuss their common problems.

The importance of a District Branch is not to be measured by the size of its membership, whose numbers vary between 4,500 as a maximum and 450 as a minimum. But the smallest Branch is large enough to carry on a wide line of activities, and as a matter of fact the attendance at its meetings has been much above the average of the others.

A District Branch has a triple function. It holds an annual meeting, and it elects a member of the Council of the State Medical Society. The third function of the District Branch is that of an intermediary between the State Society and the county societies. The leaders of the District Branches expound the policies and activities of the State Society to the local societies, and likewise, they bring to the State Society intimate information regarding the local societies and the practice of medicine in the counties. Every District Branch has a group of men who are towers of strength to the medical profession and to the public. These men are known throughout their districts, and the fame of many extends to the State and the Nation. Excellent personnel for leadership is available in every Branch.

The duties of the District Branch leaders to the State Society are well performed. The Councilors and committeemen attend their meetings faithfully, and show a commendable knowledge of local conditions. The State Society is fortunate in its method of local representation and the character of the representatives.

The relation of the District Branch to the county medical societies is balanced against its relation to the State Society. The State Society is now symmetrically formed and effectively administered, and the next great item of progress will be to bring the county societies up to its own standard. Progress always begins in a one-sided way. Some individual or society sets a new standard, and the others seek to emulate it. Every county society does something much better than any of its neighbors, and its members go along their plodding ways unaware that they have done a commendable piece of work which is worthy of imitation by other county societies.

The great difficulty with county societies,

as with rural health boards, is that they do not apply standards of measurement to their work. A great health department, or a county society including a big city, will keep a record of the small items of its activity and make an impressive showing in an annual report. The secretary of a small county society hoards the record of similar items in his mind, and neither uses them himself nor gives them out to others. He is not conscious of a neglect of opportunities, because no one has ever made use of the items, or asked him to keep them, or commended him when he has done a good piece of work.

It is the intimate contact with the county societies that offers the District Branch its greatest opportunity of usefulness and progress. The By-Laws of the State Society, Section 41, provide that "Each district councilor shall visit the counties of his district at least once a year and make a careful inquiry of the condition of the profession in each county in his district, and shall report thereon to the House of Delegates." But the By-Laws are silent regarding the further duties of the councilors and other District Branch officers to the county societies.

A balanced program of progress requires the county societies to progress equally with the State Society. The District Branches are naturally fitted to lead in that progress, and to stimulate the counties to activities along practical lines. If one county does anything well, let the councilor use its example as a stimulus to the other counties in his district. If an ideal county society were to be organized, on paper, most of its features could well be those which are found in operation in some society of almost any District Branch. What is needed is not so much new ideas or new organizations as the record of the ideals, aims, and accomplishments that are already in evidence in some society in every District Branch—one item in this society and another in another.

The leaders of the District Branches have the opportunity to inspire the local societies to develop those other activities that are promoted by the State Society, but they may go further and show the State Society new fields of activity.

The county societies and the State Society are receiving full recognition. The time has come for the District Branches to assert themselves so that they shall receive the recognition that is commensurate with their opportunities and importance.

Laxatives and Purgatives—Factors upon which regular and efficient action of the bowels depend are, according to Charles W Chapman (*Practitioner*, May, 1926, cævi, 5), early and persistent training from the nursery period to adolescence. This includes training to heed the call of nature, food appropriate to the age and constitution of the child (avoiding particularly chocolate and other sweets at odd times), thorough mastication of food, and walking exercise at all ages. In older persons with either constipation or diarrhea the possibility of malignant disease should always be borne in mind. It should also be remembered that it is possible to have a persistent diarrhea and at the same time a rectum loaded with scybala. The habitual use of strong purgatives clears away good material along with the useless, to the lowering of general nutrition. Salines, such as the sulphates of sodium and magnesium, though useful at times, are not applicable where masses of scybala are present, since they are prone to cause only watery motions while the lumps may be left undisturbed. Laxatives are not open to these objections. The most reliable laxative is senna, alone or in combination with tartrate of sodium and carminatives. A formula in frequent use at the Royal General Dispensary during the writer's pupilage there was confection of black pepper (B P), $\frac{1}{2}$ ounce, confection of sulphur, 1 ounce, confection of senna sufficient to make 3 ounces, one or two teaspoonfuls to be taken each night. After a first copious action, only sufficient to produce one easy evacuation daily should be taken. Cascara, with or without small doses of extracts of *nux vomica* and belladonna, makes a useful pill in obstinate cases. Castor oil and petroleum are useful laxatives.

Method of Treating Asthma by Radiation —

In a preliminary report, S Gilbert Scott (*British Medical Journal*, June 5, 1926, 3413) relates that while treating patients who had been operated upon for carcinoma of the breast, with the γ -rays in the endeavor to prevent metastases, he observed that those suffering from bronchitis appeared to be relieved by the treatment, and one woman who had asthma for fifteen years claimed to have been cured. This aroused his interest in the subject, and during two and a half years he has treated with γ -rays 21 cases of chronic asthma of various types with relief of symptoms in every instance, though the number of treatments given to get rid of the wheezing varied. The immediate effects are experienced within a few hours after the treatment. There follows improvement in the patient's general condition, and in most cases a definite increase in weight. The original dose given was the same as that for carcinoma, but it was found that 10 X, through 3 mm of aluminum gave as good results in asthma, and did not cause any general disturbance. The field of radiation should be large, including practically the whole trunk,

as radiation of the thorax alone does not give the results. Because of the large area radiated a low voltage is desirable. The use of two tubes, one in front and one in the back, saves time. The 10 X dose is administered once a week in the average case, and twice a week in severe cases. After the fourth dose an interval of two weeks is allowed. The treatment is repeated once a month for four months.

Diathermy in the Treatment of Multiple Sclerosis—Junius W Stephenson, writing in *Physical Therapeutics* for June, 1926, reports two cases of multiple sclerosis in the treatment of which diathermy was employed with very satisfactory results. The first case was that of a young woman of 25 years who first noticed "numbness and weakness" in her legs and "pins and needles" sensation in the fingers in May, 1922. This condition persisted for about six weeks and then disappeared. A year later she was suddenly seized with a second attack, with similar symptoms, which lasted six or eight weeks. At the end of another twelve months (June 1924) a third attack appeared, marked by weakness in the legs and coldness with "pins and needles" in the hands. The weakness in the legs was recovered from, but the paresthesia in the fingers persisted up to the time Stephenson saw her in August, 1925. About two months before this a fourth attack came on and was not recovered from when the writer examined her. At this time there was astasia with the eyes closed, the gait was markedly ataxic, there was inconstant nystagmus, the deep reflexes were exaggerated, but neither the abdominal nor the epigastric reflex could be elicited. The sense of position was preserved in the left toes but lost in the right. The Babinski, Gordon, Oppenheim, and other reflexes were present on both sides but more marked on the right. The sensory findings pointed to lesions in the upper dorsal and lower cervical regions, and accordingly the diathermy pad, 5 inches long and $2\frac{1}{2}$ inches wide, was applied from the 7th cervical vertebra down. The dosage was 500 ma, gradually increased to 1400 ma for 20 minutes three times a week. Improvement was apparent almost from the first, and five months after the first treatment locomotion was normal and there was merely a suggestion of swaying with the eyes closed. The patient could walk in a straight line and the finger-nose and knee-ankle tests were perfect. In the second case the symptoms dated back 18 years, but the improvement following diathermy was prompt and marked. Unfortunately the patient has disappeared, so that it has been impossible to follow up the case. Of course in a condition characterized by remissions no definite conclusions can be drawn from the results in these two cases, yet the prompt improvement in the sensory symptoms and the concomitant changes in the pyramidal findings afford a presumption of therapeutic efficacy in the diathermy, and warrant further trials of it.



MEDICAL PROGRESS



The Significance and Treatment of Hemorrhages—Writing on this subject in the *American Journal of the Medical Sciences* for July, 1926, clxxii, 1, C A Mills classifies bleeding under three heads (1) Hemorrhage from physical causes, such as trauma, either accidental or surgical, congestion and venous rupture, arteriosclerosis and hypertension (2) Hemorrhages as a feature of other diseases, such as subacute or chronic infection, malignant fevers, anemias, leucemia, jaundice, metabolic disturbances, and tumors, particularly carcinoma (3) Hemorrhages in the truly hemorrhagic diseases, such as hemophilia, purpura, and melena neonatorum

The characteristic feature of the types of bleeding in the first group is that the trouble lies in the physical forces and not in the blood itself. In the second group, on the other hand, the trouble lies in the blood which has been chemically altered as a result of infection, malnutrition, anemia, or jaundice, there being an excess production of antithrombin, there may, indeed, be some tissue destruction as well, but the main factor is the blood change. In the third group also the trouble lies in the blood itself, but in this case it is as it were idiopathic and independent of any other pathological condition in the patient. In hemophilia the abnormality occurs wholly in the thrombin-producing and thrombin-destroying mechanism, the blood fibrinogen and calcium content being normal. True purpura seems to be entirely dependent on the abnormal character of the blood and more particularly of the platelets which are reduced in number. The source of the trouble, at least one source, has been thought to lie in the spleen where a too active platelet destruction occurs. Melena neonatorum, the author thinks, may be explained by the physiological fact that all infants exhibit a lengthening of their clotting time from about the third to the seventh or eighth day of life, this change being very marked in some, who may then develop a dangerous hemorrhagic condition.

In the treatment of internal bleeding we are passing beyond the stage of absolute quiet, ice-bags, bandaging of the limbs, etc., and are learning more effective measures. Today transfusion is recognized as one of the most certain means of arresting hemorrhage of whatever kind, but owing to its technical difficulties it is necessarily a measure of last resort. A further advance in the control of external bleeding is the use of tissue extracts, such as cephalin and lung saline extract, but the fear that strong coagulants given internally would cause intravascular clotting has prevented their use in bleeding from inaccessible regions. The author has however succeeded in isolating the active coagulant from those tissue extracts so that

it may be used internally without fear of the toxic action of the crude extracts. This coagulant, "tissue fibrinogen," may be used internally with safety, rapidly controlling bleeding whether internal or external. Given subcutaneously it begins to exert its effect in from sixty to ninety minutes, but when given by the mouth when the stomach is empty, followed by a glass of ice-water, its maximum effect is observed within fifteen minutes. The duration of the effect is about eight hours following subcutaneous injection, and from four to five hours following oral administration. It should never be given intravenously because of the intravascular clotting which would then inevitably follow. This tissue fibrinogen will control practically all the hemorrhages of the first group and most of those of the second. Some of the second group, however, call for quite other treatment, such being especially the hemorrhagic states in severe and rapidly progressive secondary anemia and in jaundice. In these cases transfusion is the most reliable measure, as it is also in hemophilia, though the latter occasionally responds to treatment by tissue coagulant. The author mentions in this connection the curious discovery by Vines that the induction of an anaphylactic state by sensitizing the patient through the injection of 4 c.c. of sheep or hen serum and after a week or ten days injecting a few drops of the same intradermally will arrest the bleeding of a hemophiliac and cause the clotting time to remain quite normal for several weeks. Melena neonatorum should be treated by transfusion of the mother's whole blood into the superior longitudinal sinus of the infant.

In concluding his paper Mills refers to the many cases in which recovery from disease has followed promptly upon the occurrence of spontaneous hemorrhage. During the influenza epidemic of 1918, he says, it was noticed in some of the camps that the soldiers who contracted influenza and had an early hemorrhage recovered most quickly from the disease. This led to a trial of therapeutic bleeding early in the attack with very good results in shortening its course and severity. In typhoid fever also it has been noticed in Cincinnati that when patients who had intestinal bleeding, which was arrested by tissue fibrinogen, usually recovered almost by crisis immediately following the hemorrhage. He suggests that there is some close connection between spontaneous bleeding and the cure of disease through stimulation of the immune mechanism, and says that what we particularly need is some way of estimating this curative or immunity-stimulating effect of bleeding, so that we may give venesection an intelligent trial, and perhaps return to the practice in suitable cases.

patient grows older, or may become more and more serious and finally prove fatal (2) The development of telangiectasæ, sometimes as dilated capillaries, sometimes as a network of dilated venules, more characteristically as spider nevi, occurring sometimes in youth, more often in adolescence or adult life, and usually increasing with the passing years (3) The occurrence of these symptoms in several members of the family Usually the same individual presents both groups of symptoms, but sometimes one group or the other may be missing in an individual case Williams says that, while this disease has hitherto been regarded as one of great rarity, his experience leads him to look upon it as exceedingly common He thinks its frequency would soon be established if every physician seeing a spider nevus would ask about the occurrence of nose-bleed in the patient and in other members of the family

Influence of Insulin in Cancer—V R Stuhler refers to the work of Warburg in showing that the cancer cell splits sugar with formation of lactic acid and to his generalization that there can be no growth without glycolysis Insulin has been administered in various forms of experimental cancer and apparently always with inhibition of cancer growth Given in advance of implantation it shows the same inhibitory action It will be remembered that if sugar and adrenalin are simultaneously injected cancer growth is stimulated The author tested insulin injections in 14 patients with inoperable cancer, mostly recurrent The remedy was pushed by giving relatively small doses daily for several weeks In 12 of these cases no inhibitory action was shown, but in the other two such action was present in a remarkable degree The cancers in these cases were situated on the face and while very destructive could hardly be compared in severity with cancer of the cervix and breast Cancer is now generally held to produce (or is it, to result from) a disturbance in the carbohydrate metabolism, and in nearly all cases, if not all, there is an increase, however slight, in the blood sugar Any general remedy which will antagonize cancer will, the writer believes, probably reduce the percentage of blood sugar This was evident in the two cases benefited by insulin but naturally it is the function of insulin to reduce blood sugar in all individuals treated Judging from the two cases the patient, to benefit by insulin, ought to be undernourished, for in these cases the remedy caused the patients to take on a few pounds of weight—*Wiener klinische Wochenschrift*, June 17, 1926

Loss of Weight as an Early Symptom in General Paralysis—In the course of a study of

74 cases of general paralysis of the insane, made with a view to determine the primary symptoms of this condition, Henry A Bunker says that he was impressed by the relative frequency with which loss of weight was mentioned among the early symptoms of the condition Thirty-eight of these seventy-four patients suffered from loss of weight at some time subsequent to the earliest signs of the onset of the paralysis, but prior to the necessity for their commitment, and of these thirty-eight, the loss of weight was essentially the earliest abnormality noted in twenty-two In twelve of the thirty-eight patients there was also a history of bulimia developing some time after the commencement of the loss of weight which in a few cases was successful in counterbalancing that loss to a considerable extent The author suggests the possibility of a relationship of these findings to the therapeutic response of the patients, since the greater number of those who regained their weight by the increased food intake responded very favorably to treatment, while four in whom treatment was of no avail had bulimia but did not thereby regain their weight—*Archives of Neurology and Psychiatry*, July, 1926, vi, 1

Irradiated Orange Juice—As experience in the use of ultraviolet light grows apace it is found to possess many virtues and powers which were unsuspected in the beginning Not the least interesting of these discoveries is the power of these rays to impart antirachitic properties to substances not previously capable of preventing or curing rickets Among the substances which can acquire antirachitic efficacy through exposure to ultraviolet light is milk In searching for an agent which would be at once antiscorbutic and antirachitic H L Maslow, D H Shelling, and B Kramer (*Bulletin of the Johns Hopkins Hospital*, cxix, 1, July, 1926) experimented with rayed orange juice They employed a concentrated orange juice, one part in two parts of distilled water, irradiated for three hours under a mercury vapor quartz lamp at a distance of 18 inches This was fed to rachitic rats in average quantities of 15 cc per day, with most gratifying results The animals fed on the irradiated orange juice began to show improvement by the end of five days and the cure was almost complete in a fortnight Those fed on non-rayed orange juice showed no healing, or at most small deposits of calcium salts about some of the cartilage cells, but none in the metaphyses Experiments are now in process to ascertain (1) The antirachitic value of irradiated orange juice in the treatment of rickets in children, (2) the effect of irradiation on the antiscorbutic factor of orange juice, and (3) the length of time during which irradiated orange juice retains its antirachitic properties

Glossopharyngeal Neuralgia—Although glossopharyngeal neuralgia as a clinical entity has been fairly well established during the past few years, but few cases are being reported in the literature. George C Albright (*Laryngoscope*, June, 1926, xxxvi, 6) describes a case of this kind in a woman, aged 66 years, who had been treated for an acute eustachian salpingitis, superimposed upon a chronic dry catarrh of the middle ear, and probably some auditory neuritis. As the improvement following tube treatment was not all that could be desired, the patient's infected tonsils were removed. Following the operation attacks of spasmodic pain developed, which started in the throat, radiating up to the ear, and around the ear, especially over the side of the face. During examination, an applicator pressed against the junction of the palatoglossus with the tongue resulted in acute spasm similar to the attacks the patient was having. Anesthesia of this area relieved the pain. A diagnosis of glossopharyngeal neuralgia was made, and the patient informed that the only relief would be through destruction of the ninth nerve. After consultation with other physicians, who diagnosed trigeminal neuralgia, a tooth suspected of being concerned as a causative factor was extracted and the gasserian ganglion was injected with alcohol. As these measures afforded no relief, the patient consented to section of the roots of the ninth nerve. Albright says that a determination of the exact location of the "trigger area" which exists in most cases, together with a careful study of the distribution of pain, may make the diagnosis certain before surgical procedure is attempted for the relief of what had been diagnosed trigeminal neuralgia.

Fever in the Newborn Infant—F L Adair and Chester A Stewart (*American Journal of Diseases of Children*, June, 1926, xxi, 6) comment on many changes, particularly in the blood, that have been noted in inanition fever. There is a pronounced increase in urea nitrogen and amino-acid nitrogen, especially in those severely ill. A diminished alkali reserve sufficient to produce a decided acidosis is also reported, as well as changes in blood concentration. Bakwin states that fluid given by mouth in proportions of 30 to 40 cc per kilogram of body weight produces a prompt fall in temperature and in the blood concentration. The temperature usually becomes normal in from 30 to 90 minutes after the administration. Relief is obtained much more promptly when fluid is given by mouth than by intraperitoneal or subcutaneous injection. From the authors' present study, it appears that high external temperatures at least influence the incidence of fever among new-born babies. In their series the incidence of inanition fever was far higher from May to September, inclusive. Additional factors contributing to the condition are subnormal fluid intake and excessive loss in weight,

characteristic of babies having fever during the new-born period. The prompt subsidence of the fever on the liberal administration of fluids suggests that dehydration is a very important causative factor.

Double Action of the Vegetative Poisons—By vegetative poison E Barath refers to substances—alkaloids, etc.—which exert a powerful action on the vegetative nervous system comprising the sympathetic and para-sympathetic portions (*Klinische Wochenschrift*, June 4, 1926). Of two forms of double action one which is familiar to us has to do with differences in dosage in which a large dose causes symptoms quite different from those set up by minute doses. With this kind we are not much concerned here. There is, however, quite another type of action, called by the author amphitropic, which is due to the fact that certain drugs are sometimes seen to exert their action at the same time on the sympathetic and parasympathetic, perhaps in different intensities, so that bizarre symptom pictures result. In order to visualize this amphitropism it is necessary to observe the totality of the action of a drug which involves making induced tests. To take a case in point, a solution of 10 per cent calcium chlorate injected in the dose of 5 to 10 cc will cause a temporary slowing of the pulse anywhere from 12 to 35 beats a minute—the author has seen it go as low as 45. This is clearly due to its action on the cardiovagus system, part of the parasympathetic—a typical vagus bradycardia—which can be prevented and immediately antagonized by atropine in small dose. But at the same time it may be found that there is a slight rise of blood-pressure, an increase in the blood sugar, and at times an adrenalin mydriasis—all pure sympathetic symptoms indicating irritability. While the cardiovagus action is brief that of the sympathetic is prolonged. We therefore see here a typical amphitropic action. The latter can also be shown in connection with atropine and adrenalin and explains certain irregular and atypical drug actions—how a drug which ought to slow the pulse may exceptionally quicken it. This principle explains the occasional dissociation of a certain symptom picture, for while ordinarily adrenalin increases both blood sugar and blood pressure, exceptionally the sugar will increase while the blood pressure falls.

Hereditary Hemorrhagic Telangiectasia—Charles Mallory Williams reports in the *Archives of Dermatology and Syphilology* for July, 1926, four cases of this condition, the essential symptoms of which he enumerates as follows: (1) The occurrence of nosebleed in childhood, often recurring throughout the life of the patient, and sometimes associated with bleeding from other mucous membranes, or even, after traumatism, from the skin. The bleeding may decrease as the

patient grows older, or may become more and more serious and finally prove fatal (2) The development of telangiectasæ, sometimes as dilated capillaries, sometimes as a network of dilated venules, more characteristically as spider nevi, occurring sometimes in youth, more often in adolescence or adult life, and usually increasing with the passing years (3) The occurrence of these symptoms in several members of the family Usually the same individual presents both groups of symptoms, but sometimes one group or the other may be missing in an individual case Williams says that, while this disease has hitherto been regarded as one of great rarity, his experience leads him to look upon it as exceedingly common He thinks its frequency would soon be established if every physician seeing a spider nevus would ask about the occurrence of nose-bleed in the patient and in other members of the family

Influence of Insulin in Cancer—V R Stuhler refers to the work of Warburg in showing that the cancer cell splits sugar with formation of lactic acid and to his generalization that there can be no growth without glycolysis Insulin has been administered in various forms of experimental cancer and apparently always with inhibition of cancer growth Given in advance of implantation it shows the same inhibitory action It will be remembered that if sugar and adrenalin are simultaneously injected cancer growth is stimulated The author tested insulin injections in 14 patients with inoperable cancer, mostly recurrent The remedy was pushed by giving relatively small doses daily for several weeks In 12 of these cases no inhibitory action was shown, but in the other two such action was present in a remarkable degree The cancers in these cases were situated on the face and while very destructive could hardly be compared in severity with cancer of the cervix and breast Cancer is now generally held to produce (or is it, to result from) a disturbance in the carbohydrate metabolism, and in nearly all cases, if not all, there is an increase, however slight, in the blood sugar Any general remedy which will antagonize cancer will, the writer believes, probably reduce the percentage of blood sugar This was evident in the two cases benefited by insulin but naturally it is the function of insulin to reduce blood sugar in all individuals treated Judging from the two cases the patient, to benefit by insulin, ought to be undernourished, for in these cases the remedy caused the patients to take on a few pounds of weight—*Wiener klinische Wochenschrift*, June 17, 1926

Loss of Weight as an Early Symptom in General Paralysis—In the course of a study of

74 cases of general paralysis of the insane, made with a view to determine the primary symptoms of this condition, Henry A Bunker says that he was impressed by the relative frequency with which loss of weight was mentioned among the early symptoms of the condition Thirty-eight of these seventy-four patients suffered from loss of weight at some time subsequent to the earliest signs of the onset of the paralysis, but prior to the necessity for their commitment, and of these thirty-eight, the loss of weight was essentially the earliest abnormality noted in twenty-two In twelve of the thirty-eight patients there was also a history of bulimia developing some time after the commencement of the loss of weight which in a few cases was successful in counterbalancing that loss to a considerable extent The author suggests the possibility of a relationship of these findings to the therapeutic response of the patients, since the greater number of those who regained their weight by the increased food intake responded very favorably to treatment, while four in whom treatment was of no avail had bulimia but did not thereby regain their weight—*Archives of Neurology and Psychiatry*, July, 1926, vi, 1

Irradiated Orange Juice—As experience in the use of ultraviolet light grows apace it is found to possess many virtues and powers which were unsuspected in the beginning Not the least interesting of these discoveries is the power of these rays to impart antirachitic properties to substances not previously capable of preventing or curing rickets Among the substances which can acquire antirachitic efficacy through exposure to ultraviolet light is milk In searching for an agent which would be at once antiscorbutic and antirachitic H L Maslow, D H Shelling, and B Kramer (*Bulletin of the Johns Hopkins Hospital*, xcxix, 1, July, 1926) experimented with rayed orange juice They employed a concentrated orange juice, one part in two parts of distilled water, irradiated for three hours under a mercury vapor quartz lamp at a distance of 18 inches This was fed to rachitic rats in average quantities of 15 c.c. per day, with most gratifying results The animals fed on the irradiated orange juice began to show improvement by the end of five days and the cure was almost complete in a fortnight Those fed on non-rayed orange juice showed no healing, or at most small deposits of calcium salts about some of the cartilage cells, but none in the metaphyses Experiments are now in process to ascertain (1) The antirachitic value of irradiated orange juice in the treatment of rickets in children, (2) the effect of irradiation on the antiscorbutic factor of orange juice, and (3) the length of time during which irradiated orange juice retains its antirachitic properties

LEGAL

By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

THE DOCTOR AND THE WILL

All of us must die, and yet so repellent and unnatural is the thought to the average normal person that many, who otherwise throughout their lives have been alert in safeguarding their property and the interests of those dependent upon them, neglect until the final hour one of the most important duties of their lives—the making of a will

Throughout the last illness and in the final hour there is usually a doctor present. Because of the close and confidential relation which the physician occupies to his patient, it happens not infrequently that the doctor is called upon to perform some act in connection with the preparation or execution of the most important document which any of us can ever make—the Last Will and Testament. Usually at a time of this kind there is no lawyer present, and no one to advise as to the necessary formalities, and the doctor, who oftentimes is looked to by the family as a wise counsellor not only in his chosen field but in many others, is called upon at this critical time to assist in this most difficult, solemn and important act. It has occurred to us, therefore, that a statement of the simpler rules of law applicable to will-making might not be unacceptable to the medical profession

Before doing this it might be well to answer the question: Why make a will at all? The answer is that if no will is made, then the decedent's property, both real and personal, is distributed in accordance with the statute, which oftentimes may not produce the result desired, by failing fully to award to those whom the dying person would like to make the objects of his bounty

Who may devise real property? The law says that "all persons except idiots, persons of unsound mind, and infants, may devise their real estate, by a last will and testament, duly executed, according to the provisions of this article"

What is the rule in regard to personal property? Again the law is clear: "Every male person of the age of eighteen years or upwards, and every female of the age of sixteen years or upwards, of sound mind and memory, and no others, may give and bequeath his or her personal estate, by will in writing"

Having determined who may make a will, the next question is: How shall that will be made in order to render it a valid instrument?

In the first place a will must be in writing. The only exception to this rule is in the case of a soldier or sailor, either of whom may make a verbal will under conditions which the law has also plainly stated in these words:

"No nuncupative or unwritten will, bequeathing personal estate, shall be valid, unless made by a soldier in actual military service, or by a mariner, while at sea"

As this is a contingency with which the average physician will be seldom called upon to deal, we shall pass to a consideration of the necessary requirements for a valid written will. There is no mystery about this, and yet the requirements for a valid will are definite and specific, and must be complied with. The law says that:

"Every last will and testament of real or personal property, or both, shall be executed and attested in the following manner:

"1 It shall be subscribed by the testator at the end of the will

"2 Such subscription shall be made by the testator in the presence of each of the attesting witnesses, or shall be acknowledged by him to have been so made, to each of the attesting witnesses

"3 The testator, at the time of making such subscription, or at the time of acknowledging the same, shall declare the instrument so subscribed to be his last will and testament

"4 There shall be at least two attesting witnesses, each of whom shall sign his name as a witness, at the end of the will at the request of the testator"

The law is wise and there is always a reason behind it. The object of these statutory requirements prescribing the manner in which wills must be executed is, as has been said by our Court of Appeals:

" * * * to throw such safeguards around those transactions as will prevent fraud and imposition, and it is wiser to construe these statutes closely, rather than loosely, and so open a door for the perpetration of the mischiefs which the statutes were designed to prevent"

The requirements of the statute are important, they must not be disregarded, for our highest court has said that the intention of the legislature and not that of the testator, must be considered in construing this section, and failure to observe some one or more of these requirements defeats the will, even though an honest attempt to execute it properly is made.

The law, as we have seen, requires that the will "shall be subscribed by the testator at the end." There is no requirement that it be sealed, either in the case of real or personal property, but the will, in order to be valid, must be signed by the testator *at the end*. Thus it has been held that a marginal interlineation in a will, extending below the testator's signature and disposing of property, upon the happening of certain events, in the same manner in which it would be disposed of by law, may be disregarded as immaterial, and the portion of the will above the testator's signature admitted to probate.

Again, as we have seen, the subscription of the testator must be made by him "in the presence of each of the attesting witnesses" or "shall be acknowledged by him to have been so made to each of the attesting witnesses."

In order to avoid complication the testator should sign his name at the end of the will, in the presence of both of the attesting witnesses. This is true even though it has been held that it is not necessary that a witness should actually see a testator sign his will, if the testator's signature is affixed in the actual or constructive presence of the witness. Thus in one case it was held sufficient that the witness was in an adjoining room with the door open when the testator signed and could have seen him subscribe his name. Such a practice, however, is dangerous, and the proper procedure is that the attesting witnesses should actually see the testator in the act of signing the will.

In all cases, where possible, the signature should be made by the testator with his own hand without assistance, although it has been held that a testator's signature is sufficient and complies with the law if, being physically unable to sign his name, he calls upon another to assist him, even to the extent of holding and guiding his hand, so long as it is his wish that his signature be thus made and he acquiesces in it and adopts it. It has even been held that a signature by mark is sufficient where the testator was aged, deaf and blind, or where he could not read and write. A will so subscribed, however, is an invitation to attack. The safe practice is that the signature should actually be written by the testator with his own hand and without assistance.

Again, we have seen that the testator, at the time of subscribing the will or at the time of acknowledging the same, "shall declare the instrument so subscribed, to be his last will and testament." There is a purpose in this provision, as in all the rest. Subscribing witnesses to a will are required by law for the purpose of attesting and identifying the signature of the testator and that they cannot do unless, at the time of the attesting, they see it. Hence it has been held that although a testator acknowledges to attesting witnesses that an instrument is his last will, there is no proper execution of the will if, at the time he signs it, it is folded in such a manner that his signature is not visible to them. The testator must sign the will before the attesting witnesses attest the same. Thus in one case it was decided that the subscription to a will by a testator after the attesting witnesses had signed their names to it was not a due execution of it.

Again, we have seen that there must be "at least two attesting witnesses," and that each of these "shall sign his name as a witness, at the end of the will at the request of the testator." In this provision there are, then, three requirements: (a) that the attesting witness sign his name as a witness, (b) that this be done "at the end of the will", and (c) that it be done "at the request of the testator." Each of these requirements must be carried out literally. At the bottom of the will, after the testator's signature, there should be an attestation clause of which the following is a valid form:

"Subscribed, sealed, published and declared by the above named testator (or testatrix in the case of a woman)

(name)

as and for his last will and testament, in the presence of us and of each of us who, in his presence and at his request, and in the presence of each other have hereunto subscribed our names and addresses as attesting witnesses this _____ day of

_____, in the year of our Lord, one thousand nine hundred and twenty_____

Name

Address

There is one additional requirement which must be observed. It is expressed by the statute in these words:

"The witnesses to any will shall write opposite to their names their respective places of residence, and every person who shall sign the testator's name to any will by his direction, shall write his own name as a witness to the will. Whoever shall neglect to comply with either of these

provisions shall forfeit fifty dollars, to be recovered by any person interested in the property devised or bequeathed, who will sue for the same. Such omission shall not affect the validity of any will, nor shall any person liable to the penalty aforesaid, be excused or incapacitated on that account, from testifying respecting the execution of such will."

In cases where an attack upon the will might reasonably be anticipated, either by reason of the claim of undue influence or lack of testamentary capacity or on other grounds, compliance with the provision added to the statute by the legislature in 1923 would be of material assistance to those seeking to resist such an attack. This section provides that

"A subscribing witness to any last will or testament may make and sign an affidavit before any officer authorized to administer oaths setting forth such facts as he would be required to testify to in order to prove such will. Such affidavit may be written upon said will, or on some paper securely attached thereto, and may be filed for safe keeping with the last will or testament to which it relates."

Where an attack upon the testator's capacity is anticipated and there is sufficient time and opportunity, it would be wise to have the testator examined by two physicians who are certified medical examiners under the Insanity Law. The new provision of the statute on this subject is

"There may also be filed with such will, affidavits of certified medical examiners, under the provisions of the insanity law, certifying that the maker of said will was of sound mind at the time of its execution, together with any facts supporting such opinion."

While the statute of the State of New York requires but two attesting witnesses, in the statutes of some other states three attesting witnesses are required. It would therefore be wise to inquire whether or not any of the real property devised is situated in other states, in which case it would be a wise expedient to have three, instead of two, attesting witnesses.

It oftentimes occurs that those about the bedside of the dying person or in attendance upon him during his last illness and who might reasonably be expected to act as his attesting witnesses, are those who are intended to participate in the testator's bounty. These facts should be inquired into, because a person who is to be a beneficiary under the will cannot be an attesting witness without forfeiting his legacy or devise. The law upon this subject is

"If any person shall be a subscribing witness to the execution of any will, wherein any beneficial devise, legacy, interest or appointment of any real or personal estate shall be made to such witness, and such will cannot be proved without the testimony of such witness, the said devise, legacy, interest or appointment shall be void, so far only as concerns such witness, or any claiming under him, and such person shall be a competent witness, and compellable to testify respecting the execution of the said will, in like manner as if no such devise or bequest had been made."

"But if such witness would have been entitled to any share of the testator's estate, in case the will was not established, then so much of the share that would have descended, or have been distributed to such witness, shall be saved to him, as will not exceed the value of the devise or bequest made to him in the will, and he shall recover the same of the devisees or legatees named in the will, in proportion to, and out of, the parts devised and bequeathed them."

In the making of a will one of the most important matters is the choice of an executor. The executor is the trusted representative of the testator. He is the person selected to carry out and administer the wishes of the deceased. He should therefore be a competent and trusted person, and latterly it has been regarded as a wise practice to appoint a trust company and an individual as co-executors. In this way the estate receives the benefit of the financial advice and management such as only a trust company can render, and also the personal interest of the individual who has been selected as the co-executor. The testator may select a trust company to act as his sole executor, or he may select an individual to act in that way. If an individual is selected he must be over the age of twenty-one years, he cannot be an adjudged incompetent, an alien, a non-resident of the state, a felon, or a person incompetent to execute the duties of the trust by reason of drunkenness, dishonesty, improvidence or want of understanding.

In this article, of course, there has been space only in which to indicate a few of the most important principles surrounding the making of a will. It is hoped that these may be not without interest to the medical profession. If interest in this discussion is evinced, we would be pleased to pursue the subject in some further article. There are many fascinating subjects which might be of interest to the doctor, among which are the great questions of undue influence and in-

sanity or other mental incompetence which would render a will invalid. The physician, by the nature of his trusted relationship to patients, is frequently thrown in contact with the law. As with the lawyer, there is no subject the knowledge of which may not be beneficial to him in his practice.

It is the purpose in these editorials, so far

as is possible, to talk of subjects which may be of interest to the profession. Your counsel will welcome advice or suggestion along this line. If there is any subject which physicians feel they would like to have discussed and upon which they feel their counsel would be competent to throw light, he will be glad to take up the topics suggested.

BRONCHIAL PNEUMONIA—RESOLVING OTITIS MEDIA

A physician was called to attend a child about two years of age. Upon examination he found her with a temperature of about 103 degrees and respiration of about 56, with a history of twenty-four hours' illness accompanied by temperature, fast respiration and pain in the ear. Upon a complete examination, with the use of the stethoscope, the presence of rales was found in the entire chest, particularly in the right side. Examination of the right ear disclosed a congested drum. After examination a diagnosis was made of bronchial pneumonia. *Liquor ammonii acetatis* was prescribed, the use of mustard plasters to the chest and syringing of the ear, and the mother was advised to give the child sponge baths. Two days thereafter he found the right hand swollen and did not determine the cause of this condition.

Another physician was then called to attend the child. The defendant saw the child once in consultation with the second physician, at which time the previous diagnosis was confirmed and it was suggested that the ear drum be watched. Thereafter the defendant was advised that he need not call again.

The second physician made a thorough examination of the child and a diagnosis was made of influenza and pneumonia with resolv-

ing otitis media. The swelling of the right hand was unexplained but did not suggest pus or rheumatism, but was possibly due to anaemic condition. The second physician attended the child for eight or nine days, when a third physician was called in, who made a diagnosis the same as the first two physicians, but after three or four days of observation of the ear, decided that an abscess had formed, and that it would be necessary to open the same, and thereupon called in a surgeon to perform the operation. The surgeon opened up the abscess, placed some drains therein, and left the care of the patient in the hands of the third physician. The bronchial condition cleared up while under the care of the third physician.

Thereafter an action on behalf of the child and the father's action for loss of services were instituted against the first physician, charging him generally with negligence and carelessness, and the lack of proper judgment in his examination, diagnosis and treatment of the infant plaintiff, and that by reason of such alleged negligence the sickness of the child was prolonged and increased and his health permanently impaired.

When these actions came on for trial, the plaintiffs failing to appear in the prosecution thereof the complaints were dismissed.



NEWS NOTES



THIRD DISTRICT BRANCH

The Twentieth Annual Meeting of the Third District Branch of the Medical Society of the State of New York will be held in the Auditorium of the Harmanus Bleecker Library, corner of Dove Street and Washington Avenue, Albany, N Y, Saturday, September 25th, 1926

Program

10 A M (Daylight Saving Time)

Address of Welcome

William P Howard, M D, President, Albany County Medical Society

Presidential Address

Charles P McCabe, M D, Greenville, President, Third District Branch

Address Post-Graduate Education

Henry J Noerling, M D, Balatie, President, Columbia County Medical Society

Address Periodic Health Examinations

Haven Emerson, M D, New York City

Address Medical Legislation and the Webb-Loonius Bill Henry L K Shaw, M D, Albany, Chairman Legislative Committee, Medical Society of the State of New York

Address

William P Howard, M D, Albany

X-ray conference, round table discussion

LUNCHEON, 1 P M

The Members of the Branch are invited to luncheon at the Fort Orange Club as the guests of the Albany County Medical Society

AFTERNOON SESSION, 2 P M

Address George E Fisher, M D, Utica, President, Medical Society of the State of New York

Address James L Sadler, M D, Poughkeepsie, President-elect, Medical Society of the State of New York

Address Daniel S Dougherty, M D, New York City, Secretary, Medical Society of the State of New York

Address Joseph S Lawrence, M D, Executive Officer, Medical Society of the State of New York

Address William A Howe, M D, Albany, State Education Department

SOCIAL, 5 P M

Annual Clambake of the Albany County Medical Society at McKown's Grove, Western Turnpike, at 5 o'clock All members of the Third District Branch and their wives are cordially invited Tickets at \$5 00 each

PROGRAM FOR THE LADIES

The wives of the members and the women members of the Branch will be entertained at Luncheon at the Albany Country Club, Western Turnpike, at one o'clock by the wives of the members of the Albany County Medical Society The afternoon will be spent at the Club, and at 5 P M adjournment will be taken to the McKown's Grove for the Clambake

TRANSPORTATION

Transportation will be provided for the members of the Branch and their wives both to the Country Club and also the Clambake, if so desired Western Avenue buses go by Harmanus Bleecker Library, the Country Club and McKown's Grove

SENECA COUNTY MEDICAL SOCIETY

The Semi-annual meeting of the Seneca County Medical Society was held at the Citizen's Club, Seneca, on Thursday, May 13th

The morning business session was followed by a luncheon at the Gould Hotel after which the Society reconvened for a scientific session

Dr J M Swan, in charge of the publicity work in New York State, of the American Society for the Control of Cancer, spoke on the role of the private physician in the early diagnosis and prevention of cancer A very interesting discussion, led by Dr Elliott, followed Dr Swan's remarks

The Society was then addressed by Dr John

R Williams, of Rochester, who spoke on "High Blood Pressure" Dr Williams gave the modern conception of high blood pressure, spoke interestingly of the experiments he carried out while in Toronto, and of the treatment of patients with this condition, emphasizing, especially, keeping these patients within normal weight limits, and giving them plenty of rest He spoke of associated conditions of nephritis and arteriosclerosis and emphasized the importance of the specific gravity of day and night urine as indicative of serious renal impairment, if it does not vary

Dr Lester W Bellows, Waterloo, N Y, read a very interesting biography of Dr Coventry, the second practising physician of Seneca County

SUFFOLK COUNTY MEDICAL SOCIETY

1 The Semi-Annual Meeting

The regular semi-annual meeting of the Suffolk County Medical Society was held in the Old Oak Hotel, Patchogue, on Tuesday, May 18th, 1926, with thirty-eight members and seven guests present. The President, Dr J S Ames of Babylon, presided.

On motion the Society voted to request the State Medical Society to hold its next meeting in Niagara Falls.

The Society voted to approve the anti-diphtheria campaign that is promoted by the Medical Society of the State of New York, the State Department of Health, and the Committee on Tuberculosis and Public Health of the State Charities Aid Association.

The Treasurer, Dr David H Hallock, reported that the present paid-up membership of the Society was 110. The amount of dues collected during the past fiscal year at five dollars each was \$546, and that \$1,215.03 remained in the treasury. The two principal items of expense were \$233.15 for the Monthly News Letter—the eight-page publication of the Society—and \$95 for clerical hire for the Secretary.

Dr Guy H Turrell, Editor of the News Letter, sent a brief report of the publication, and especially urged the associate editors to send more items from their respective districts.

Dr W H Ross, Chairman of the County Committee on Tuberculosis and Public Health of the State Charities Aid Association, suggested a tentative plan of enlarging the scope of the Society's News Letter, and publishing it more frequently by permitting the Tuberculosis Committee and other health organizations to use its column for news and publicity, part of the increased cost to be borne by the other organizations. Considerable discussion followed, all favorable to the suggestions, and the following motion was unanimously carried:

Whereas, There exists an opportunity to advance practical medicine, foster the material and economic interests of the medical profession, and promote public health by expanding the Monthly News Letter of the Suffolk County Medical Society, therefore

Be It Resolved, That the Suffolk County Medical Society be authorized to receive any funds donated by health or other organizations, or from private sources, for the purpose of expanding and publishing semi-monthly, or more often, the News Letter of the Suffolk County Medical Society.

The following new members were elected:
Dr Louis C Grytie, Patchogue

Dr Grover A Silliman, Sayville

Dr Katherine G Brockman, Kings Park

Dr Charles R Gannaway, Kings Park

Dr William E Glanville, of Bridgehampton, was accepted as a member by transfer from the Nassau County Medical Society.

Mr A Royce Wolfe, County Secretary of the Boy Scouts, was present by invitation, and spoke briefly on the instruction in first aid that is given to every scout. He asked the cooperation and influence of the Medical Society in giving a standard form of instruction. This matter was referred to the Committee on Public Health with the understanding that standard methods in first aid should be presented through the columns of the Monthly News Letter.

After the business of the Society had been transacted the members and guests dined together at one o'clock, and then convened for a scientific program. The general subject discussed was the group of chronic diseases that affect the joints, kidneys and heart—a subject that was broad and included many related conditions.

Dr W H Ross gave a preliminary report on studies which he and Dr P A Williams had made on the relation of diet to arthritis, diabetes, and kidney diseases. The two physicians had observed twelve cases of chronic arthritis with great care, and had found incipient diabetes, nephritis, and heart involvement in them in varying degrees. They had kept the patients on a diet that was restricted, especially in carbohydrates, and had made sustained studies in calories, blood chemistry, and urine, and had balanced the incomes and outgoes of the bodies of the patients to their great benefit. Further reports of this series of cases will be made.

A further development and application of the points presented by Dr Ross was made by Dr Blake F Donaldson of New York City, who demonstrated two cases of cardio-nephritis supplied by Drs W W Gardner and L J Barber. One was in the incipient stage, and his disease was probably caused by wrong eating, especially an excess of salt and carbohydrates. This case was already improving under dietary directions and instruction.

The second case was an elderly woman with a blood pressure over 300, and clear evidences of sclerosed kidneys and arteries. This case had progressed so far that a anatomical replacement of the sclerosed tissue was impossible, and the patient will be happier if she is allowed to have her own way in dieting and other details of living.

2 The Comitia Minora

The Comitia Minora of the Suffolk County Medical Society met on the afternoon of July 29th, in the bungalow of Dr W H Ross, at Fort Salonga, with the eight physicians present

The President, Dr J S Ames, stated that the principal object of the meeting was to take action on an offer of the Suffolk County Committee on Tuberculosis and Public Health to assist the Medical Society in financing its Monthly News Letter up to about one thousand dollars annually

Dr W H Ross suggested that the News Letter embody the following features

1 It shall supply the public with medical news which the people could understand

2 It shall describe the activities of the County Medical Society, the Committee on Tuberculosis and Public Health, the Board of Child Welfare, the local Boards of Health, the school medical examiners, and other agencies doing public health work in the County

3 It shall state the attitude of the physicians of Suffolk County toward public health subjects, such as pure milk, water supply, sewage disposal, hospitals, and other public projects in which health is involved

4 The County Medical Society shall continue to have control of the News Letter as in the past

After considerable discussion of the details of the proposals of Dr Ross, all favorable, they were unanimously adopted and a committee of three was authorized to carry out the details of the plan. The President appointed Drs W H Ross, Guy H Turrell, and F Overton such committee

The periodic examination of persons apparently healthy was next discussed. It was felt that the time had come when the Society should promote the examinations, and it was suggested that the doctors could show their sincerity in the best way by each one submitting himself to an examination by a medical colleague of his own choosing. It was unanimously voted to adopt the plan as a major activity of the Society, and that a committee of three be appointed to carry out the details of the plan. The President appointed Drs P A Williams, G H Schenck, and A G Turrell as the committee

It is planned to use the A M A blanks, to send two copies to each doctor, and to ask each doctor examined to send a copy of the report to the committee for tabulation and study

The subject of pure milk in Suffolk County, which had been discussed at nearly every meeting of the County Society recently, was brought up because of recent disclosures that "bootleg" milk was being brought into the County from up-State and New Jersey, and was being sold without the dealers obtaining permits or disclosing the sources of their supply. Moreover, several cases of infant sickness had been traced to milk labeled "Grade A," "Pasteurized," which had turned sour before night on the day it was bought. The opinion of the members of the Comitia Minora that a series of articles stating the principles of pure milk supply be printed in the News Letter, and that the Public Health Committee should promote the establishment of means by which bacterial counts of milk might be made in the County

3 The Public Health Function of a County Medical Society

The public health function of a county medical society is stated in the following editorial by Dr W H Ross in the August News Letter of the Suffolk County Medical Society

"The Medical Society of Suffolk County can perform no more important work, nor fulfill its reason for existence better than to advocate measures for the protection of public health and to devise means to make them effective

'To stimulate development of any sound health program for the protection of the health of the County should be a major function of organized medical effort. To arouse the interest of the public generally regarding prevention of disease and to secure ultimate acquiescence by the public, it is as necessary to advertise what can be done as it is to advertise, as an example, anything for sale

"The effectiveness of any effort in health or welfare lines, so as to secure individual, community or county governmental support depends upon the demands of public opinion in these respects

'It is expected that the News Letter of the Suffolk County Medical Society and of the Health and Welfare Organizations of Suffolk County, may become the official means of developing health education in the prevention of disease and the protection of the health of its citizens under all conditions and at all ages"



THE DAILY PRESS



PREPAREDNESS

Preparedness has many other phases besides that of military defense. There is also defense against epidemics. A great epidemic is unlikely, but like war, it comes unexpectedly and in unfamiliar forms. The great epidemic of infantile paralysis in 1916 found the entire community as unprepared and as helpless as it was against attacks of cholera and yellow fever a century ago, and neither the medical profession nor the people are now better prepared than they were a decade ago.

It is commendable that Health Commissioner, Dr. Louis I. Harris, has started a movement in medical preparedness. A news item in the New York Sun of August 5th, says

"A plan to be prepared in case of a visit to

the city of epidemics such as the influenza scourge of 1918 is being worked out under the sanction of the Mayor's Committee on Hazards and Emergencies. It aims to offer the hospitals, health agencies and other groups, a course of action which can be immediately put into effect in case of the sudden appearance of an epidemic. The studies now being made will be completed before October 1. The Mayor's Committee will be asked to ratify the plan of attacking the phantom epidemic after Dr. Harris has worked it out on the basis of a study now being made by Dr. Hollis L. Godfrey. The sum of \$3,850 has been raised for the preliminary study by public subscription. The total cost of the survey is estimated at \$12,000."

THE STAGGER PLAN OF TRAVEL IN NEW YORK CITY

The New York Herald-Tribune of August 5th describes the further development of the plan to relieve crowding in the transportation system of New York City. The project is in charge of a committee under the Department of Health, consisting of Dr. Louis I. Harris, Health Commissioner, Dr. Louis I. Dublin, statistician of the Metropolitan Life Insurance Company, who is in charge of the census, and Major Philip H. Mathews, executive officer of the Transit Commission.

The Committee has listed the following industrial units for the purpose of the investigation:

The list of industrial units agreed on by the committee for the main manufacturing groups is as follows: (1) men's wear industry, (2) women's garment industry, (3) millinery and lace goods, (4) fur and fur goods, (5) leather goods, (6) jewelry, (7) paper products, (8) printing, publishing and bookbinding (not including newspapers), (9) furniture, (10) house furnishings, (11) pianos, (12) metal industry.

Minor manufacturing industries include (1) chemicals, paint, oil, drugs, proprietary medicine and cosmetics, (2) tobacco and allied products, (3) vehicles and allied lines, (4) stone, clay and glass products, (5) textile manufactures, (6) miscellaneous manufactured products.

Wholesalers and jobbers fall into seventeen divisions, as follows: (1) silk textiles, (2) woolen textiles, (3) cotton textiles, (4) carpets and rugs, (5) knit goods, (6) electrical sup-

plies, (7) food products and cold storage plants, (8) millinery, (9) fur and fur goods, (10) leather goods, (11) jewelry (when so specified), (12) coffee, tea and spices, (13) drugs, chemicals and proprietary medicine, (14) shoes, (15) hardware, (16) furniture, (17) miscellaneous wholesalers.

Under retail trade department stores will be placed in one group and all retail stores in another. Building employees and building maintenance and service are grouped together.

Manhattan's clerical force will be divided into the following classes: banks, insurance, stock brokers and investment houses, and other clerical, executive and professional groups.

Industries belonging to the group doing a twenty-four hour business, such as newspapers, garages, hotels, power houses and restaurants, will be treated as a separate subdivision.

The New York Herald-Tribune of July 20 contains a brief preliminary report on the first 500 forms which were filled out by employers. The report says:

"Among the discoveries which surprised those taking the census was the large percentage of workers who walk to work. Eighteen out of the 106 employees of the United States Tobacco Company walk to work. 11 of the 56 at Leo Feist's music publishers, walk. 25 of the 120 at the Century Company, publishers, walk, and larger percentages were tabulated for some firms."

Already differences of opinion are developing, and American independence is asserting itself. One employer is quoted:

"We believe that the hours of nine to five belong by priority right to office workers. The hours of nine to five are the most convenient and the best hours of work for many reasons. More recently, textile workers and the employees of dry goods stores have usurped these hours. If any readjustments are to be made, those who have come last to these hours should do the readjusting in all fairness."

Either indifference or American independence, in an exaggerated form, is delaying the census of travelers within the city. The New York Sun of August 18th comments on the slowness of the responses and says:

"Mayor Walker stepped into the emergency today and made public a statement appealing to business men to take an active interest in the 'stagger census' and have the census blanks compiled at the earliest date. Only 400,000 returns have been received and the least calculation is

that the transit movement of 1,000,000 workers must be analyzed before an adequate system can be mapped.

"The returns are all classified and office forces have been provided for the swift assortment of the cards. They are then turned over to experts for analysis and interpretation. Several trends in subway travel not hitherto realized have become apparent from the studies made so far. The full data will make it possible to learn the travel habits of the bulk of Manhattan's workers, so that the plans devised for relief will be based upon known facts."

The New York Herald-Tribune of August 19th says in an editorial entitled "Slackers":

"Some people have not enough interest in the present situation to take the little trouble to improve it which is asked of them. The lack of transportation in New York is not wholly the fault of those who have had to deal with it. A large part of it is due to the refusal of the public to do their share—as they are refusing in the present instance."

HEREDITY VS TRAINING

The following clipping from the New York Herald-Tribune bears on the much discussed subject of the relative values of heredity and training as incentives to action:

"The younger generation of pullets in the poultry families of Middletown, N. Y., are not wastrels, but serious-minded young hens, intent on being good mothers. A farmer has a pullet less than seven months old which has stolen a nest, laid fourteen eggs and hatched fourteen chickens. The pullet never had the advantage of being well brought up by a competent old hen. It was one of 200 orphans hatched in an incubator."

Inherited traits are always to be considered in judging the reasons for any given action.

A tame crow will always be mischievous and thieving no matter how much it be trained, and so will some human kleptomaniacs. Jail birds will repeat their crimes over and over whenever they get the chance and no amount of training or expressions of sorrow will change them. The children of some families will lead straight lives under trying temptations, and those of other families cannot be trusted with any chaperon. But the fact remains that the great mass of human beings are amenable to suggestion and training and are anxious to adapt themselves to society. It is quite the style and custom to adapt one's self to the standards of politeness, which after all, are founded on morals and righteousness.

A DISPELLER OF HUMBUG

The New York Herald-Tribune of August 9th contains an editorial commending the work of one of the world's great "Magicians" in exposing the claims of miracle workers. The editorial says:

"Many pretenders, who were seven-day wonders, even exciting the interest of fairly intelligent persons, have been exposed by this rational and energetic man. He is really an apostle of intelligence.

"An Egyptian mystic, whose exploits have caused some little stir among those who have seen

him recently, had himself sealed up in a casket and remained under water for an hour. He asserted that he could do this because of his power of suspending his own animation for that period—'going into a trance' and remaining temporarily dead.

"Houdini did not go into a trance. He merely, by careful breathing, conserved the oxygen supply in the casket, and lived by its means until the end of an hour and a half. Credulity is still too common among the wonder-loving race of human beings."

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THE EXPERIMENTAL PRODUCTION OF LUNG ABSCESS*

By S A. SCHLUETER, M.D., I. F. WEIDLEIN, M.D., and E. C. CUTLER, M.D., CLEVELAND, O

THIS study of lung abscess was made as a part of a general investigation of postoperative pulmonary complications. It, therefore, concerns chiefly the type of pulmonary suppuration occurring under these conditions, although our ability to create lung abscesses experimentally allows us the opportunity to study the pathological development, course, and subsidence or final disastrous result in any abscess once it is established. In view of our interest in postoperative pulmonary complications, it will be obvious to you that we were chiefly concerned with the manner by which such postoperative

treatment of lung abscess as compared to the few careful studies devoted to its mode of origin.

It is commonly accepted that there are two chief groups of lung suppuration, one developing within the bronchial tree, and one developing within the lung tissue, the latter type at least commencing as a real parenchymatous abscess not in connection with the air passages (1). With the extension of any abscess, the bronchial tree is finally opened into so that gross pathological studies will never give evidence of the initial stage of the disease. We believe that the type of abscess occurring as a postoperative complication starts as a true parenchymatous lesion. To support this view we bring the evidence 1, that other postoperative pulmonary complications are of embolic origin (2, 3), and 2, that we can reproduce lung abscess experimentally by the use

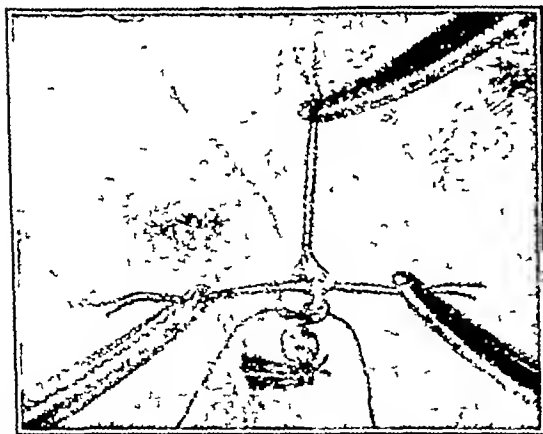


FIG 1—Method of preparing vein embolus. Shows section of femoral vein, tied at one end, other end open lead hling and culture have been placed in this sac and upper end is about to be tied. Embolus is then ready for placement in vein.

lung abscesses arise. We feel that, until the etiological factors responsible for the production of a lung abscess are at hand therapy cannot rest on sensible grounds. And yet the information now available shows that an immense amount of effort and study has been expended in the

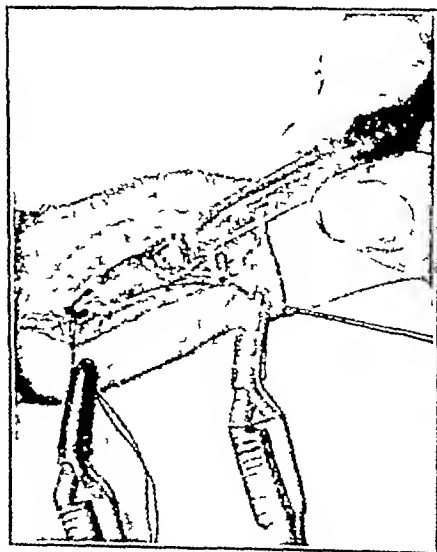


FIG 2—Method of introducing embolus into jugular vein. Shows jugular vein held out of wound with threads and glass cannula containing embolus placed in opening into vein pointing toward the heart. Salt solution forced into cannula from syringe will push embolus down the vein when lower traction thread is released. Opening in vein is then sutured or the vein is ligated.

*Read before the New York State Medical Society, March 31, 1926. From the Laboratory of Surgical Research, The Lakeside Hospital and the Western Reserve Medical School.

of infected emboli which result in a true parenchymatous lung abscess, whereas no one has ever successfully reproduced typical lung abscess in laboratory animals by the instillation of infected foreign bodies and infected tissue into the air passages. Those familiar with bronchoscopic work (4) have reiterated the great dissimilarity between the pulmonary suppuration which sometimes accompanies a foreign body in the air passages and true lung abscess. The facts that patients have carried large foreign bodies in their

to lead us to feel that infection played a dominant rôle.

2 These complications occurred in almost equal percentages whether local or inhalation anesthesia was used.

3 The frequency of occurrence of the complications seemed to vary not according to the age or type of the individual, nor with any external conditions, but according to the seat of the operation. And here it seemed to vary according to the mobility of the part. Thus, a conservative estimate will give postoperative pulmonary complications in two per cent of general operations. In operations upon the brain where the skull acts as a definite splint, the percentage is almost nil. The percentage for the general abdominal cavity is around five to six per cent, but in the epigastrium, where each breath moves the part, the percentage rises to eight per cent.

We are entirely conversant with the ideas and reasoning of those who support the aspiration-irritation theory as to the production of these lesions. We recognize that in every operation, as has been shown experimentally (6, 7, 8) and clinically (9), there is aspiration of mouth contents. We know that the inhalation of sputum spray apparently reduces the resistance to infection. But we also know that elaborate preoperative measures aimed at cleaning the mouth and the use of buccal suction during the operation



FIG 3—Dog Y 16 Roentgenogram immediately after freeing an embolus into the jugular vein. The lead film demonstrates lodgment of the embolus in the left lower lobe.

bronchi for many years with little more in the way of symptoms than a chronic, productive cough and that there is almost immediate relief in these cases with removal of the foreign body are arguments against calling this type of lesion a lung abscess. Although a localized bronchial suppuration may be produced in this way, the lesion consists chiefly of endobronchial irritation caused by the foreign body and rarely results in extension into the parenchyma to form a true lung abscess. Lung abscess can be produced by freeing infected emboli into the blood stream. We feel that this is the explanation for the type of abscess seen as a postoperative complication. It may be the explanation for the major number of all lung abscesses and is, in our minds, the explanation for all those that originate as parenchymatous lung abscesses.

For a long time we have been interested in the etiology of postoperative pulmonary complications, and after years of study were forced to the conclusion that the majority of such complications were the result of embolism from the operative field (5). This conclusion was based on the following reasoning:

1 The clinical course of a majority of the so-called postoperative or ether pneumonias was rarely so severe, nor the duration long enough,



FIG 4—Dog Y 16 Three days after embolism. Note beginning consolidation.

do not diminish the morbidity percentage of these complications nor is it greatly affected when the anesthesia is in the most expert hands. Indeed, it would seem reasonable to state that if aspiration always occurs it for that very reason cannot be the chief etiological agent, otherwise a far larger percentage of patients would present the picture of some one of the pulmonary complications.

Postoperative lung abscess occurs frequently following operation within the bucco-pharyngeal

cavity, and, as tonsillectomy is by far the most common operation in this field, lung abscess has in a general way become attached to this particular operation. Certainly it is our laryngological colleagues (10, 11, 12, 13, 14) who write about it and discuss it most frequently. However, a careful analysis of the facts shows that the fre-



FIG 5—Dog Y 16 Five days after embolism. The entire lobe is consolidated

quency of lung abscess after tonsillectomy is no higher than with other operations in a septic field*. It is merely that the great number of tonsil operations performed yearly affords an opportunity for more of these cases to appear in relation to tonsillectomy than with other operations. Obviously in either the recumbent or

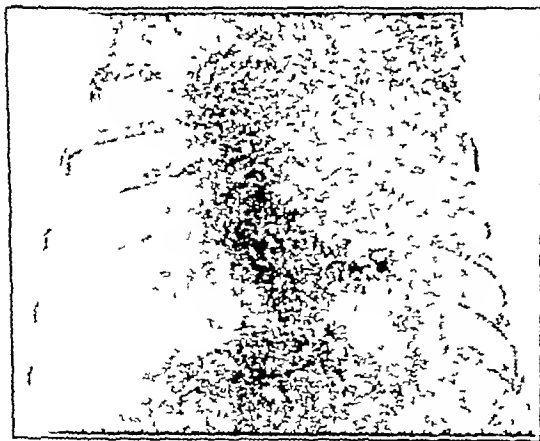


FIG 6—Dog Y 16 Eight days after embolism. Great extension process

the lying position the opportunity for aspiration is present. Indeed it seems as if it were so obvious that no one thought to look further for the cause of this disastrous complication.

*We have been able to collect 1908 cases of lung abscess in the literature 29.6 per cent of which are postoperative. 14.6 per cent of the total followed tonsillectomy.

This same attitude of mind existed in the early days of ether anesthesia, as regards the operations of general surgery. Preceding ether, no one thought of pulmonary complications since the danger of hemorrhage and sepsis so outweighed all other risks. With the advent of inhalation anesthetics and finally of antiseptics and asepsis, surgical technique so improved that the lesser evils of operations began to show up. The anesthetic, as the only new agent added to surgery and as a drug absorbed directly by the lung, was naturally blamed for all pulmonary complications. In 1879 Von Anrep (15) discovered and developed cocaine as a local anesthetic. This slowly came into use but when it did so, the



FIG 7—Dog Y 16 Cut surface left lower lobe showing extensive necrosis with cavity formation, also point of rupture into pleural cavity

more studious surgeons came to see that post-operative pulmonary complications still occurred. So from the simple historical perspective, we have some reason for thinking that the aspiration-irritation theory cannot explain all these complications.

This same perspective may be used in regard to tonsil operations, for enough statistics of lung abscess as a sequel to operations upon the tonsils under local anesthesia are now at our command to allow us the same doubts as to the rationality of the aspiration-irritation theory in this field as well (12, 16).

Curiously the problem has been attacked experimentally almost solely from the aspiration point of view. Innumerable investigators have instilled great varieties of bacteria with and without foreign bodies, of both organic and inorganic matter, into the lung via the trachea (17, 1, 18, 19). None have succeeded in creating typical, slowly developing lung abscesses with a high de-



FIG 8—Dog Y 20 Roentgenogram immediately after embolism Lead filing demonstrates lodgment of embolus in left lobe.

gree of uniformity and regularity We felt that lung abscess presented us with an opportunity to bring more evidence to our own convictions that embolism was the chief method by which postoperative pulmonary complications were initiated, since, could we create lung abscess by such a simple method as freeing an infected embolus into the venous circuit, we would be able by means of the X-ray and surgery to study its further development This opportunity is not afforded when one attempts to study experimentally the other forms of postoperative lung complications, where an elucidation of complaints and the study of clinical symptoms depends so much on our conversational ability

In order that our investigations might be fully controlled and to avoid criticism from those still holding that the aspiration of infected material might be the source of lung abscess, we first attempted to produce lung abscess by the introduction of infected materials into the air passages Using a small bronchoscope, a great variety of materials infected with many kinds of organisms were introduced as deeply in the bronchial tree as possible The materials used included infected tonsils, carious teeth, peanut kernels, bits of metal, etc In fifteen experiments not a single abscess was produced, though some of the animals died within three days of a gross infection which had perforated the bronchus at a point injured by the bronchoscope Histological study of the specimens showed no evidence of pulmonary infection

THE PRODUCTION OF LUNG ABSCESS BY INFECTED EMBOLI

We then devised a method for freeing small infected emboli in the venous circuit. In order that the infected material be brought to the field intact, it had to be enclosed in some sort of a capsule that would, once lodgment of the embolus

had occurred, free the organisms for their further development In order to more closely simulate actual conditions, the substance holding the organisms should be inert, in fact we should try to simulate an infected clot Further, we should add to our embolus a small piece of metal that would show in the X-ray films in order to locate the site of the lodgment of the embolus preceding the development of a consolidated area We used a small bit of lead for this latter purpose, and this served not only as a guide to the original lodgment site, but, as the consolidated area broke down and liquefied, the metal shifted in its position in the clear central zone of the abscess, as shown by the X-ray films, and gave as a very secure demonstration of cavity formation This piece of metal was coated with paraffin to render it inert Many capsules and substances that would carry bacteria, also infected meat, bits of infected tonsils, etc., were used in our experiments, but we finally adopted as a standard embolus an excised piece of femoral vein, tied off at each end and filled with bacterial emulsion (Fig 1) For bacteria we have used staphylococcus aureus, *Bacillus coli*, pneumococcus and streptococcus anhemolyticus Since the jugular vein in a dog is large and easily accessible, the embolus was usually placed in this vein, but exactly similar effects were produced when in a few experiments the embolus was inserted into the femoral vein

The Method—The vein is cut down upon under either general or local anesthesia, isolated, pulled into the wound by two sutures, opened between the sutures after temporary clamps have been placed above and below, a glass cannula is inserted into the open vein, the embolus is placed in the cannula and then washed into the vein with salt solution from an attached glass syringe (Fig 2) The vein is then sutured and the embolus allowed to escape towards the heart

Immediate X-ray films demonstrate the place of lodgment of the embolus and daily subsequent

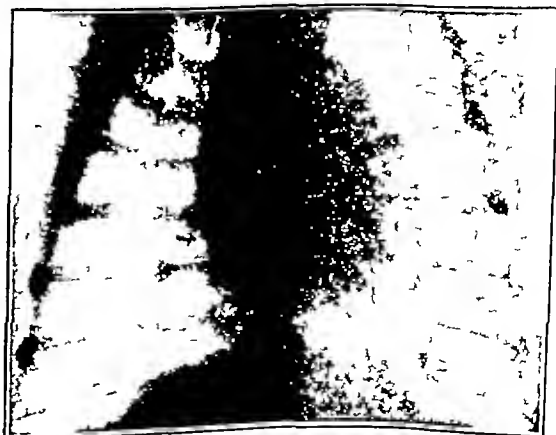


FIG 9—Dog Y 20 Two days after embolism Note beginning infiltration

films picture the development first of the consolidated area and the later of the cavity formation within this area. In one hundred experiments sixty per cent of the emboli lodged in the left lower lobe, undoubtedly because of the straighter course and greater volume of blood within the vessel going to this lobe. The same reasons for distribution hold in human cases where the greater percentage of abscesses are found in the right lower lobe.

The following experiments demonstrate the method and its results.

Experiment I—Dog Y 16, brown and white, long haired female mongrel, weighing 102 kg,

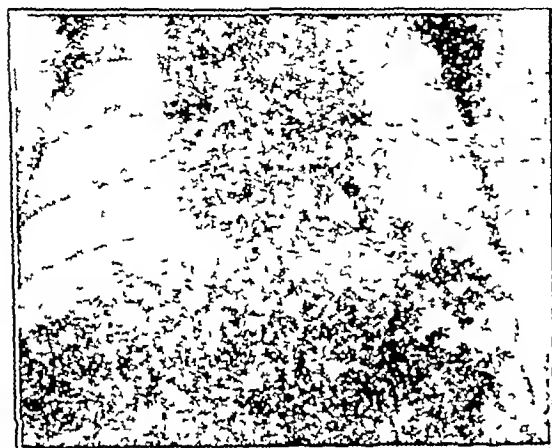


FIG 10—Dog Y 20 Six days after embolism. Note increase in consolidation and cavity formation. The lead filings have dropped to lie in the bottom of the rarefied area.

Sept 18, 1925 was given one-fourth grain morphin. Under ether anesthesia, the right jugular vein was prepared in the usual manner. A piece of human tonsil additionally infected with a loopful of staphylococcus aureus from an agar slant and with paraffinized lead filings attached was placed into the glass cannula, the cannula was inserted into the vein, and the embolus was forced onward with salt solution. The vein was sutured with silk and the skin was closed in the usual manner. A roentgenogram of the chest revealed the foreign body in the left lower lobe (Fig 3).

Sept 21, 1925—The animal appeared sick, refused both food and water. When first seen in the morning, blood was found in the cage, and examination revealed old blood in both nostrils. X-ray revealed a beginning infiltration in the left lower lobe (Fig 4).

Sept 23, 1925—The animal continued ill and would not eat. The entire left base cast a very dense shadow in the roentgenogram (Fig 5).

Sept 26, 1925—A roentgenogram of the chest (Fig 6) showed a very dense shadow occupying the entire lower half of the left chest. No fluid

level nor pneumothorax could be demonstrated. The animal died at noon.

Necropsy—Both pleural cavities contained a large amount of dark bloody fluid. There were no pleural adhesions. A large blood clot was present in the left pleural sinus. The entire left lower lobe was large and firm. In the lower part of the lobe an abscess cavity about the size of a walnut was found to have ruptured into the pleural cavity (Fig 7). The upper left lobe showed almost complete atelectasis while the lobes on the right were air-containing and apparently normal. Microscopically, a section taken through the abscess wall showed an acute diffuse inflammation of the neighboring lung tissue. The infiltrating cells were mostly leucocytes. The inner wall of the abscess was composed of fibrin and necrotic tissue.

Experiment II—Dog Y 20, long haired, black female mongrel, weighing 106 kg, Oct 3, 1925, was given one-fourth grain morphin. Under ether anesthesia a segment from the right femoral vein was removed, inoculated with *Bacillus coli* and staphylococcus aureus and introduced into the left jugular vein. The vessel was sutured with silk, and both skin incisions were approximated with a subcuticular stitch of silk. A roentgenogram of the chest localized the foreign body in the left lower lobe (Fig 8).

Oct 5, 1925—A roentgenogram of the chest showed considerable infiltration about the foreign body in the left lower lobe (Fig 9).

Oct 7, 1925—A large circumscribed area of density was present in the left lower lobe.



FIG 11—Dog Y 20 Cut surface left lower lobe removed by lobectomy showing abscess cavity with necrotic walls. There is a wide zone of tissue reaction which histologically consisted chiefly of acute diffuse inflammation.

Oct 9, 1925—A roentgenogram showed a large cavity in the center of the area of density (Fig 10). The lead filing had dropped to the bottom of the cavity. The lobe was removed by operation. The left lower lobe revealed an indurated mass in the center of the lobe. Fluctuation within the mass could be palpated. On sectioning, an abscess cavity about the size of a walnut was encountered containing necrotic tissue and pus (Fig 11). Cultures taken from the pus revealed staphylococcus and *Bacillus coli*. Microscopically, a section taken through the abscess wall showed the inner wall of the cavity to be made up of



Fig 8—Dog Y 20 Roentgenogram immediately after embolism. Lead filing demonstrates lodgment of embolus in left lobe.

gree of uniformity and regularity. We felt that lung abscess presented us with an opportunity to bring more evidence to our own convictions that embolism was the chief method by which postoperative pulmonary complications were initiated, since, could we create lung abscess by such a simple method as freeing an infected embolus into the venous circuit, we would be able by means of the X-ray and surgery to study its further development. This opportunity is not afforded when one attempts to study experimentally the other forms of postoperative lung complications, where an elucidation of complaints and the study of clinical symptoms depends so much on our conversational ability.

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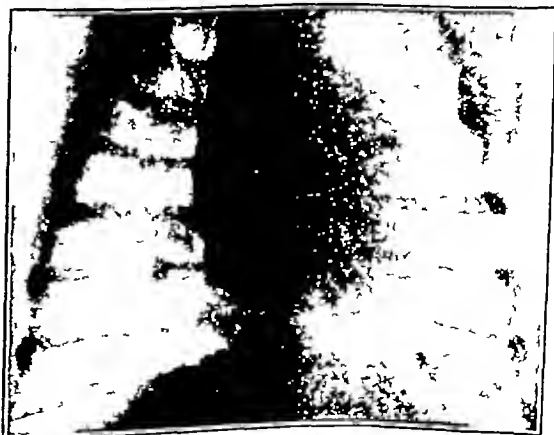


Fig 9—Dog Y 20 Two days after embolism. Note beginning infiltration.

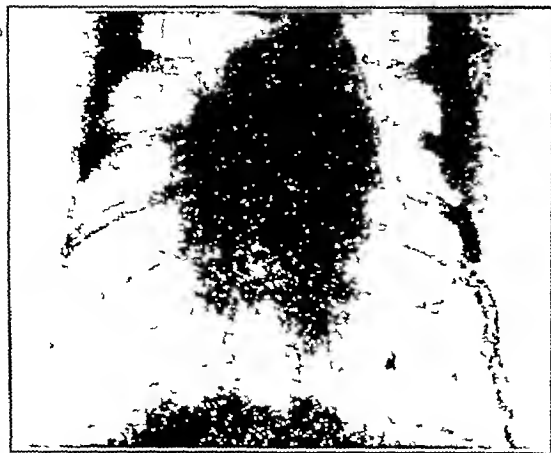


FIG 15—Dog Y 21 Twenty-eight days after embolism There is still a faint and restricted zone of consolidation and the lead filing seems to be in a small cavity

of the tissues in the lung, and the presence of other organisms already present but of insufficient virulence to establish disease by themselves. Also the question of the importance of the condition of local infraction is brought up. The resultant circulatory changes may be of considerable importance.

These experiments would seem to demonstrate that at least a certain number of postoperative lung abscesses may be due to infected emboli from the operative field. They further strengthen our view that most postoperative pulmonary complications may have a similar etiology. If this is so the lesson is for the surgeon, not for the anesthetist. Such complications can only be reduced, they can, probably, never be entirely avoided. Gentle handling of tissues, the most meticulous surgical technique, perfect hemostasis and the greatest asepsis possible under the condition imposed by the field of operation will surely reduce not only the morbidity from lung abscess but from all other postoperative pulmonary complications. We hope that this possible explanation of postoperative lung abscess will have as much influence in lowering the disability from this disease as the great amount of effort already put into methods of therapy.

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FIG 16—Dog Y 21 Cut section through left lower lobe, removed at operation, shows a healed fibrous scar without cavity or evidence of infection. The piece of metal is firmly embedded in dense connective tissue.

fibrin and necrotic tissue. The adjoining lung tissue was densely infiltrated with leucocytes. There was considerable recent hemorrhage. Histologically, the picture was one of acute diffuse inflammation.

Experiment III—Dog Y 21, shepherd, male, weighing 15 kg, Oct 7, 1925, was given one-fourth grain morphin. Under ether anesthesia a segment from the right femoral vein was removed, inoculated with cultures of *Bacillus coli* and introduced into the left jugular vein. A roentgenogram of the chest localized the foreign body in the left lower lobe (Fig 12).

Oct 8, 1925—An area of cloudiness could be seen about the foreign body (Fig 13).

Oct 12, 1925—The area of density was larger in size and a distinct cavity was visible (Fig 14).

Nov 3, 1925—Subsequent roentgenograms (Fig 15) of the chest revealed a persistence of the cavity. The animal seemed normal in every way, good appetite, active, no cough, no fever.

Nov 9, 1925—The left lower lobe was removed by operation. The specimen showed a healed

abscess. A combination of organisms as stated above seems most useful.

There also appears to be some importance at-

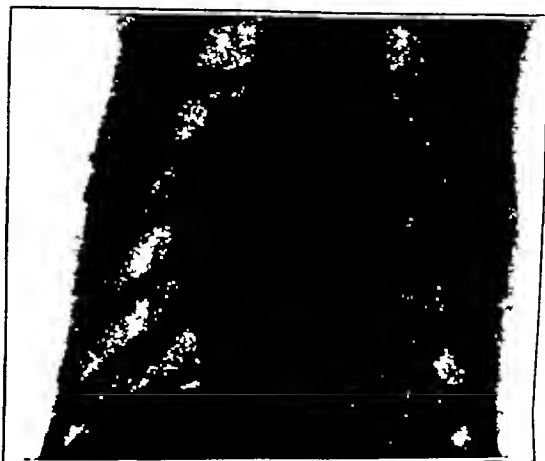


FIG 13—Dog Y 21 Twenty-four hours after embolism. There is already considerable clouding of the field about the piece of metal.



FIG 12—Dog Y 21 Roentgenogram immediately after embolism. Note lodgment lead filing in left lower lobe.

fibrotic lesion (Fig 16). Microscopic sections were not taken.

These are merely typical experiments. They can be repeated at will. Using this method and with the same bacteria we have had one hundred per cent successful results. We have found that many factors play an important role. Thus, the type of organism is of the greatest importance, and, though we have been able to produce typical abscesses with *Bacillus coli*, streptococcus an-hemolyticus and staphylococcus aureus alone, we have also had several failures, the animals recovering without ever showing any signs of abscess. *Bacillus coli* seems to be the most useful of all organisms for this purpose in the dog. Pneumococci alone—even virulent strains recovered from fatal human cases—have not sufficed to produce

tached to the physical properties of the embolus. Thus, with infected tonsils, infected meat, etc., the lesion frequently kills the animal soon after the production of the abscess. It may be that enclosing the infected material in a segment of vein allows the production of a high local resistance and walling off process before the organisms are actually freed into the tissues in great number. Experiments conducted in which a simple infected clot was released resulted much the same as when infected tonsillar tissue was used. Just what are the physical and immunological conditions in human cases that establish the favorable local condition for a lung abscess is still unknown, but it may well depend upon



FIG 14—Dog Y 21 Five days after embolism. Note considerable area of consolidation with cavity formation.

several factors such as the size of the clot, the amount of infection it carries, the local resistance

locate any lesion in the lens by observing these lamellar or discontinuity zones

Gross changes in the anterior capsule are evident to the superficial observer but minute lesions are only found with the slitlamp. If an isolated area has pigmented spots on its surface, it is presumptive evidence that the opacity extends to the capsule. If there are fibers of pupillary membrane attached to the opacity, we consider the cataract congenital. The pupillary membrane fibers always come from the shelf of the iris, never from the pupillary margin. A congenital cataract may show reduplication of the opacity in several layers, frequently concentric but often with ballooning extensions. Such cataracts resemble spools in shape. They are easily distinguished from shadows by changing the angle of illumination and observation. True thickening of the capsule is rare.

So-called posterior capsular opacities are easily differentiated from posterior cortical changes by exact focusing on the capsule. These are remnants of the hyaloid and are properly designated posterior hyaloidea capsularae. They all vary in form, thickness and end extensions. Detected in the usual ophthalmoscopic examination as a black dot generally to the nasal side of posterior pole of the lens, it assumes a new form under the slitlamp.

White dots, specks or fibrils may be scattered throughout the entire lens. When few and irregularly placed they are, as far as we know, without pathological significance. They are found in the majority of lenses. When, however, these dots are arranged in concentric rings, they are pathological. Another frequently observed form of isolated opacities are the finger-like projections of coronar cataract, which may be associated with other opacities.

We have now reconstructed the lens by superimposing and combining the layers of opacities which we have found in a large series of cases. We know that an opacity of the lens may follow these definite and distinctive zones.

A lamellar or zonular cataract is an example of a common form of regular cataract. Dense lamellae may be present, the faintest dot may show the location or there may be any degree of opacification between these extremes. Extending into more peripheral layers than the ones of greatest opacity are irregular hooks or arcs of white fibers called riders. We may have small riders without lamellar suggestion or both, layer cloud and hook may be manifest.

The opacities so far described have followed a regular order of distribution. There is a large group in which the opaque areas are irregularly placed. These include upper qua-

drant defects, isolated fibers, twisted white cords and many other types.

The color of the cataract depends upon the amount of enclosed pigment, on the thickness of the opacity and its position in the lens. Thin opacities sometimes have a bluish tinge, denser and deeper ones a gray-color. Deep cortical nuclear changes are always yellowish brown. An iridescent sheen may be seen. This is common in the posterior cortical changes but less frequent in the anterior ones.

Most of the slowly advancing and rapidly progressive cataracts can be separated pathologically and clinically. This is the particular phase of the subject to which especial attention is drawn. Slowly advancing opacities may be either in the periphery or in the center of the lens. The most common form, when seen with the ophthalmoscope, appears as black streaks with wavy outline and when examined under the slitlamp looks like fissures in clear ice, such as the iceman makes with his axe when he divides the cakes into small pieces. These opacities always involve many layers of lens fibers and may advance so slowly that it is impossible to observe any progress from one year to the next. The central cataract usually corresponds to the size of the lens at birth, appears yellow and is seen more easily with the ophthalmoscope than with the slitlamp. Either type may remain unchanged for years. Other cases show a little increase in the depth and width of the fissure, also an increase in number. These forms should never be confused with senile or progressive cataract.

The question is just what constitutes a progressive cataract. The basic change in the lens is an imbibition of fluid by the lens fibers showing first when seen with the slitlamp as a black cleft or clefts most often extending from the periphery of the lens. As the disease progresses, these crevices become filled with broken lens fibers, cell debris and more or less spherical Morganian bodies. The boundaries of the clefts later become opaque. The destruction of the lens fibers continues. Fluid is first seen as a single round or oval drop but as the drops increase in number and size they coalesce and form a distinct oil-like layer between the lens and its capsule. After a time the fluid begins to absorb. The opacity then rapidly becomes greater. Later so much of the fluid is absorbed that the lens returns to its normal thickness and the anterior chamber to normal depth. This is the most favorable time for expressing the lens from its capsule. If operation is delayed, the liquefaction of the lens fibers continues and a milky fluid consisting of lens debris and Morganian bodies fills the capsules except for the brown nucleus.

When the lens capsule is opened, as for the absorption of a zonular cataract, it is possible

THE MODERN CONCEPTION OF CATARACTS

By ARTHUR J BEDELL, M D, ALBANY, N Y

CATARACT has been known for centuries. The term is found in medical history as early as 2250 B C. It is probable that operations similar to those in present use were in vogue 500 years before Christ. The Pompeian collection contains instruments similar to those of today. The late Dr S Lewis Ziegler recently completed a most instructive thesis on the historical side of cataract to which all are directed for authentic information.

We wish to speak of the changes that have taken place in our knowledge of cataracts and especially to differentiate between three types, stationary, slowly advancing and progressive. Traumatic changes will not be discussed.

As late as 1706 a cataract was supposed to be a pellicle inside of the capsule. This was disproved by Daviel. Later Morgagni described the lens changes which are linked with his name. The lens is usually defined as consisting of cortex and nucleus, although in Von Ammon's atlas Fig 1 published in 1841 there is a

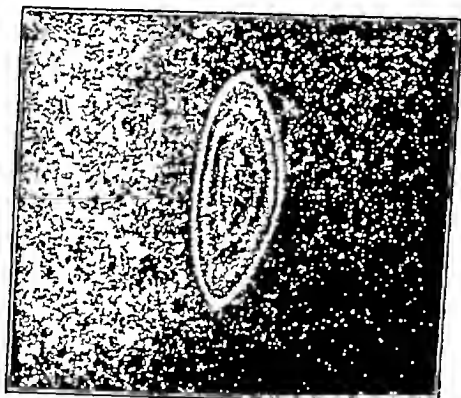


FIG 1—A reproduction from Table XI, Fig XXXV, *Klinische Darstellungen der Krankheiten und Bildungsfehler des menschlichen Auges der Augenlider und der Thränenwerkzeuge nach eigenen Beobachtungen und Untersuchungen herausgegeben von Von Ammon*, published in 1841.

drawing of a lens showing many layers of opacification. Apparently this picture was not commented upon. A few years ago, Vogt using the slitlamp found that the lens consisted of many divisions. Fortunately, the improved methods of routine examination make it possible for us to see and recognize that these divisions are normal and can be demonstrated in almost every lens.

We can reconstruct a lens by noting the lines of discontinuity or by combining the opacities found in a large series of cases. To do this, we must have a simple and yet an accurate chart for recording lens changes. Fig 2 right shows the front view of the lens, and left, Fig 3 the

profile with the phantom lines suggesting the recognized sub-divisions. Both must be used in recording every case. It is also essential to note the size of the pupil. This diagram shows why

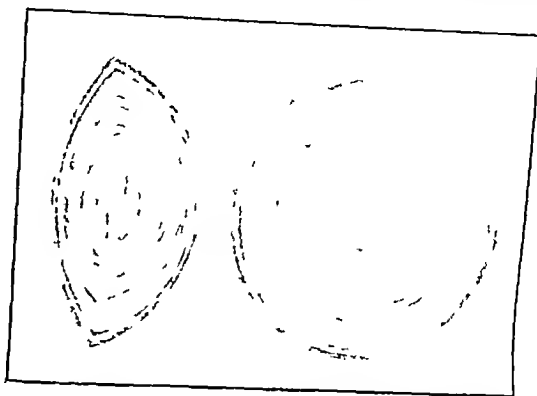


FIG 2—LEFT—Profile view of the lens anterior surface to the left. RIGHT—The recognized demonstrable lens divisions.

full dilatation of the pupil is obligatory, if we are to know the condition of the lens. No record of a cataract or its progress is complete without such notations.

On this chart we record a single white spot, a few white dots or a continuous sheet in the mathematical center of the lens. Passing forward and backward, the curved lamellar surfaces of the central interspace are suggested by scattered specks or completely outlined by a white layer, anterior axial embryonal cataract. This is our first zone of discontinuity and is so determined even when the lens is perfectly clear. Advancing or receding still farther, we come to the embryonal nucleus margin which is easily distinguished because of two outstanding features, an anterior upright Y and a posterior inverted Y. These Y's are on the surface of the lens as it exists at birth. The Y may present an infinite variety of forms, at times a mere suggestion of its shape is indicated by a nebulous white haze. The extensions of the Y may be short or even absent. At other times, the arms are elongated, frequently thickened and occasionally dense white. Sometimes they are so thick and so white that they are visible to the naked eye.

New lens fibers are being constantly added to the embryonal nucleus, finally showing a new zone, the adult nucleus at about the time of puberty. The surface of this presents many distinctive elevations, knobs and ridges. Between the capsule and the adult nucleus fibers continue to form until death. We are able to

every cataract All the scientific and clinical methods at our command must be used to determine the diagnosis of every case If this is done, each type will be understood and a correct prognosis can be given the patient This

will lead to a saner, truer and more professional contact with the patient, who in turn will be able to live his life without undue or unwarranted anxiety

"THE MODERN CONCEPTION OF CATARACTS"

By MARTIN COHEN, M.D.,

A Discussion of the Paper by Dr Arthur J Bedell

THE development of cataract cannot be adequately understood from changes in the lens alone The humors of the eye play an important part in nutrition of the lens and in maintaining its normal composition Before studying the etiology or relief of any particular eye disease, we have undertaken the study of the chemical composition of the humors and lenses of normal animal eyes on a comprehensive scale Before determining how these humors arise and the relation they bear to the blood, it is essential to know their composition The results of those analytical studies on the ocular fluids have already been published It is not necessary to state them now, except to mention that these results show that there is an active metabolism going on within the eye The vitreous fluid is very similar in composition to the cerebro-spinal fluid, but the aqueous appears variable It appears warranted to conclude from our studies that the aqueous humor represents the accumulation of the waste products from the eye metabolism

Our work on the normal lens is far from being complete, however, several significant facts have been demonstrated The solids of the lens are almost wholly protein Morner has demonstrated four proteins present, an albuminoid, alpha and beta crystalline and an albumin Probably the best work reported in the literature demonstrates that the chief variation between normal and cataractous, not traumatic lenses, is in the character of the proteins (Jess) In the matured cataract, the crystallines have disappeared, in immatured the amount present is diminished The method of preventing cataracts, or of arresting their development by the use of lens antigen or vaccine administration is based, I believe, on a false assumption This antigen is an extract of normal lens of animals, and is injected into human subjects with incipient cataract, on the assumption that there is no difference between the composition of the normal and the cataractous lens This assumption is ob-

viously incorrect, in view of reliable reports in the literature It is difficult to see how the use of this antigen will restore the alpha and beta crystalline to the cataractous lens, any more than any other non-specific protein There is a marked difference between the inorganic constituents of the eye humors and the lens The humors are largely physiological salt solutions, but the lens contains but a very small amount of inorganic constituents These, however, change with age, and may also change with the development of cataract Cholesterol likewise increases in concentration in the lens with increasing age, and it has been asserted by some that cholesterol is more abundant in the cataractous than in the normal lens

Goldschmidt has shown that the lens possesses an autooxidation system more efficient than any other tissue of the body Such a system is essential for the metabolism of the lens and is due to the presence in it of glutathione In cataractous lens this glutathione activity is greatly diminished or absent This has been confirmed by work in England on "glass blowers' cataract" Such observations demonstrate that these changes involved in the production of cataract are similar to changes seen in any tissue in the death of that tissue However, these are only effects Further investigations into the biochemistry of the humors and of the lens of the eye are essential to demonstrate the causes, and to indicate the possible rationale of prevention For that reason we have attempted to study the biochemistry and metabolism of the eye as a whole Biochemists and clinicians are beginning to realize more and more that physico-chemical phenomena play as important a part in regulating the metabolism of the body as quantitative relations It will be possible to approach the problem of cataract intelligently only when our knowledge of the biochemistry of the eye and of the physico-chemical phenomena concerned in its metabolism is more complete

to see the lens fibers swell and become detached from their surroundings. Later the individual fibers become fractured and still later swollen, waved fibers, broken cells and granular white bodies are present. By analogy, we may conclude that the lens undergoes similar but less rapid changes in progressive cataracts.

Four types of senile cataract are clinically differentiated, adult nuclear, diffuse, central and posterior cortical. The adult nuclear opacities are seen as projecting spires or an irregular smudge and begin most often in the inferior nasal quadrant. These involve both anterior and posterior layers of the senile nucleus and are often partly obscured by thin, overlying concentric lines of increased density.

Diffuse opacities are scattered throughout the lens and are usually densest in the equatorial periphery. In concentric layers of granules, specks, dots, dashes and fibrils they advance into the pupillary area.

The center of the lens may become opaque.

There are three forms of posterior cortical involvement which must be considered at this stage of our discussion, because two of them are always progressive cataracts and the third may be. The two which are always progressive are complicate cataract and the saucer type. To distinguish between them is not difficult. In the saucer there is a thin opacity which looks somewhat like a dark gray sheet with scattered black perforations resembling pumice stone in appearance. Complicate cataract consists of a mass of rounded, projecting gray spheres, densest at the posterior pole and extending laterally and centrally. Another allied form of posterior cortical cataract is that which is seen in many cases of advanced retinitis pigmentosa. This is characterized by innumerable small globules which seem to form in the beginning a rather thin layer close to the posterior capsule. The same massing of spheres has also been seen in the anterior cortical layers after iridectomy. The rosette or fourth form is a thin opacity surrounding the sutures of the posterior portion of the lens. This may be the result of contusion and is the only type of posterior involvement which may show a tendency to resorption.

All forms may be combined in the same cataract, adult nuclear and posterior cortical changes are most often associated.

Because of the limitation of time, it is impossible to discuss traumatic cataract, details of the lens margin including congenital notching and zonular fiber attachments or dislocation of the lens.

Cataract is described as an opacity of the lens or its capsule, but we as ophthalmologists must differentiate types for clinical purposes. We should not use the old term "incipient" cataract, which is neither descriptive nor com-

prehensive, for it is used to embrace not only the slowly advancing lens changes but also the rapidly progressive ones. The modern conception of a cataract should be opacities laid down at the development of particular portions of the lens, those which begin in middle adult life but never totally obscure the sight and finally progressive opacities in which the clouding of the lens is rapid.

Reference to the pathologic processes proves that the increased fluid content of the lens may be lessened and the patient have better vision but that the disease process is still progressing and later the vision will be reduced again. It is a fallacy, therefore, to use vision as a measure of improvement, for the reason that all senile cataracts go through certain stages, which certainly in the vast majority of cases are not influenced by any drug or any external measure, unless it is refraction. Thousands of cataracts remain almost stationary for years, without any treatment. Many more thousands progress to maturity in spite of all that is done. Only the exact clinical observation of the lens, and this of course includes careful slitlamp examination made by a competent observer, must be the basis for deductions regarding the value of any form of treatment. The mere expression, "examination by slitlamp" means nothing.

So many patients have been exploited and so many cures have been foisted upon the public that this particular method of sub-division must, I believe, be presented to the public. They must be made to understand that a senile or progressive cataract is a condition which seemingly cannot be controlled and should be likened to advancing age, senility. They must also appreciate that senility is a relative term, and individual in its application. A patient is entitled to know that an opacity of the lens may progress to a certain point and then stop, without any change in his surroundings or general health. He should be told that the change is similar to the graying of hair, which is frequently an expression of hereditary tendencies, and may appear at any age. This is not said in a frivolous way, but is intended to emphasize the fact that if a patient has a senile cataract no one to my mind is warranted in saying that it can be cured or that its progress can be checked by local treatment. As yet no clinician has definitely described the microscopic changes that have taken place in a lens as a result of local therapy.

In conclusion, as the word cataract suggests to the laity impending blindness, we urge the restriction of the use of the term and especially ask that modifying adjectives be used that will definitely describe the particular form of cataract such as congenital, stationary, slowly advancing or senile progressive. We also ask for a more careful physical examination of

part of the world, since so many natural foods contain it and suitable modifications in the food supply will prevent any shortage of it. There is, however, an alcoholic extract of rice polishings, known as tiki-tiki, which for some years has found application in therapy in infantile beri-beri in the Philippines.

Vitamin C deficiency leads to the development of scurvy. The provision in the diet of any one of a list of common fruits or vegetables in the fresh condition supplies this vitamin. Attention to the diet with respect to its antiscorbutic value is now universally given, especially in the feeding of infants. It may be well to state that although orange juice and tomato juice have been the sources of vitamin C generally recommended, the juice of turnips, cabbage, carrots or potatoes appears to be entirely appropriate for administration to infants. These are to be recommended in places where citrus fruits or tomatoes are not available.

In rickets there is a disturbance of calcium and phosphorus metabolism which causes the well known abnormalities of bone growth. The vitamin D in some way effectively directs the processes of calcification in the growing bones when the disease exists, causing recovery. It appears that infants born with a poor physical inheritance are especially susceptible to rickets and may develop the disease when the diet is satisfactorily constituted for children with better physical inheritance. It has been demonstrated that young animals of certain species, e. g., the rat, develop rickets when fed diets which are unfavorably constituted in that they contain too little calcium and a disproportionately large amount of phosphorus or too little phosphorus and a disproportionately large amount of calcium, and are deficient in vitamin D. Babies develop rickets on diets which would never cause the disease in little rats. Cod liver oil, because of its richness in vitamin D, is very effective in curing the disease in both species. The difference in the susceptibility of human infants and young animals seems to be due to feeble powers of assimilation of the former. The administration of cod liver oil is an effective measure of insuring that rickets will not develop.

There is no unanimity of opinion concerning the proper dosage of cod liver oil for infants. We find that young rats cannot tolerate very liberal amounts (e. g. above 6 to 7 per cent of the diet) without injury. Anyone who has taken the oil knows the tendency to disturbances of digestion which it causes. Experiments on animals show that relatively small amounts exert a profound influence in bringing about the healing of the rickets lesion. It seems logical to believe that many people are now giving children considerably more cod liver oil than is necessary.

One of the most interesting and important advances in research on nutrition in recent years is the demonstration that sunlight and especially ultra violet light has a pronounced effect in promoting physical well-being. Irradiation with ultra violet light produces effects which are comparable to those produced by taking cod liver oil. It has been shown by Hess that irradiation of cholesterol causes it to acquire antirachitic properties. There is reason to believe that cod liver oil may owe its therapeutic effects to the presence in it of the active form of cholesterol. The short rays of light are highly active chemically. It is easy to do harm by too great exposure to these rays especially when the skin has not been well tanned by cautious and progressive exposure.

It will be seen from what has been said that in certain restricted areas of the world each of the vitamins is likely to be deficient in the food supply. In many regions, especially in industrial sections where the food supply is entirely derived from retail stores, there may be multiple vitamin deficiency to an extent that the optimal intake of more than one or two of them is seldom reached. The farm, the garden, or the fresh vegetable market, together with the milk supply, afford articles which if secured would improve the dietary and make the difference between a dietary regimen which will support well-being, as contrasted with the typical dietary of white bread, meat, potatoes and sugar, syrup or molasses, which is inadequate and may result in gradual impairment of vitality and health.

The vitamin E has been shown to play a role in the nutrition of the rat which is very different from that of any other vitamin. This substance, according to Evans, is not necessary for growth nor health, and without it oogenesis and spermatogenesis take place normally but when it is absent in the food supply of the mother it is not possible for the young to survive much beyond the middle of the normal gestation period. The distribution of this vitamin in relative abundance in whole grains, in certain vegetable oils, meats and green vegetables, would lead one to suspect that human sterility is very seldom if ever to be referred to deprivation of this substance. It has, as yet, not found any place in therapy.

Students of public health problems have repeatedly emphasized that the program thus far followed has been effective mainly in two directions. It has greatly decreased the death rate from certain transmissible diseases against which the public can be protected by vaccination, quarantine, mosquito, hookworm and yellow fever control, pure water, pure milk, etc. It has been eminently successful in preventing infant mortality through safeguarding the milk.

THE RELATION OF VITAMINS TO DISEASE*

By E M McCOLLUM, Ph D, BALTIMORE, M D

SINCE the fundamental observation of Eijkman in 1897 that beri-beri is the result of limiting the diet almost exclusively to polished rice, and that there is something in the outer layers (germ) which is capable, when administered in very small amount, of preventing or of relieving the symptoms of the disease, progress in research on the class of nutrients of which we require but apparently insignificant amounts has reached the point where we now recognize the existence of at least five, and probably six, vitamins. These are known as vitamins A, B, C, D, E, and P-P.

The outstanding pathological effects which result from deprivation of an individual for a single one of these when it is confined to a diet which is otherwise complete, make it clear that there may arise, and frequently has arisen, in human experience disease which may be attributed to specific vitamin starvation.

Thus, deficiency of vitamin A results inevitably in the appearance of xerophthalmia. The lacrymal glands lose their functional capacity, resulting in failure of tear secretion. The eyeballs become dry and are overgrown by microorganisms. Ulcers form on the cornea, which finally perforate the eyeball, resulting in extrusion of the lens. Administration of suitable amounts of any fat containing the vitamin A results in a spectacular return of these structures to a healthy condition, in some cases even after the sight is destroyed. The salivary glands are likewise affected. They also cease to function. Besides the eye changes there is much evidence that deprivation of vitamin A affects specifically the epithelial tissues. It has been asserted that it results in a marked reduction of blood platelets, and in a peculiar disturbance of ovarian function in which the ovaries extrude one, two or three ova at frequent intervals instead of a much larger number on a cycle of approximately 96 hours.

There is also much evidence (Daniels) that vitamin A deficiency leads to increased susceptibility to infection. The nasal and aural cavities become filled with a purulent discharge. Osborne and Mendel have attributed the formation of urinary calculi on low vitamin A diets to alkalinity of the urine as a result of bacterial decomposition. This view postulates a weakening of the defensive mechanism against bacterial invasion.

There are satisfactory reasons for believing that the disease known in Japan as "hikan" is primarily a vitamin A deficiency disease (Mori). Vitamin A is abundant in cod liver oil and other fish oils, in butter fat, as well as

in a number of leafy vegetables, and is found in smaller amounts in many natural foodstuffs. Although xerophthalmia occurs rarely in America it is highly probable that hemeralopia and nyctalopia have not infrequently been encountered as the result of faulty diet in mining and lumber camps, and among the inhabitants of Newfoundland and Labrador.

Eijkman described the symptoms of polyneuritis resulting from what is now known as vitamin B starvation. There is at present much reason to believe that what has been known for several years as vitamin B is in reality two or more substances. One of these is an antineuritic substance which prevents or relieves polyneuritis, the other being a substance which is regarded by Goldberger as probably the etiological agent, or a contributing factor in the causation of pellagra. Both of these substances are found together in the natural foods thus far studied. Smith and Hendrick and Goldberger, et al have shown that in yeast the antineuritic substance is readily destroyed by heating in an autoclave, whereas the anti-pellagra substance, designated by Goldberger as P-P, is stable.

It is impossible to segregate at this time the pathological changes which result from a deficiency of each of these vitamins. The multiple neuritis results from starvation for the heat-labile one, and apparently the primary lesions of pellagra from deprivation of the heatstable component.

When the animals are fed a diet of polished rice there is, among other deficiencies, a lack of the antineuritic substance. McCarrison has discussed the changes seen in vitamin B starvation under four divisions. In the first are chronic undernutrition, resulting in atrophy of the musculature and glandular structures. This results in impairment of digestion and assimilation. Following these changes there is a partial loss of mass of the endocrine organs except the adrenals, which undergo hypertrophy, and lastly a pathological state of the nervous tissues. He attributes these phenomena to a specific starvation of the cell nuclei, but has not yet presented very good evidence in support of this view. It would be out of place here to recite the details of the several speculations which have been set forth to explain the mechanism of the action of vitamin B. Its probable multiple nature was suggested a year ago by Laird, working in the author's laboratory, and the studies of Smith and Hendrick and Goldberger, and his coworkers, strengthen this view. It will suffice to say that a deficiency in the human diet of the nutrient fraction called vitamin B is inexcusable in any

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

APPENDICITIS IN EARLY LIFE*

By EDWARD WADSWORTH PETERSON, M.D., F.A.C.S., NEW YORK

MUCH has been written about appendicitis in childhood, much more should be written on this subject, for it is the most frequent and the most important surgical affection of the abdomen in early life. Practically all writers have emphasized the following points: the relative rarity of the disease under five years of age, the difficulty of diagnosis, owing to the insidious onset and the obscure clinical picture, the tendency toward early perforation, with rapid spread of inflammation and overwhelming toxemia, and the high mortality in childhood, especially in the first half decade of life.

In my opinion appendicitis is not at all uncommon under five years of age. I do agree, however, that it is rarely recognized at this period, and, under two years of age it is usually overlooked entirely in all but the worst cases. I am willing to grant that in certain cases the onset is insidious, the clinical picture obscure and the physical examination absolutely misleading, but in the majority the clinical picture is just as clear-cut and characteristic and as easy to interpret, and the physical examination just as satisfactory as in adults. In fact, speaking generally the diagnosis of appendicitis, if anything, is easier in the child than in the adult.

The tendency to early perforation, and the disastrous train of symptoms which so often follows, is due largely to the almost universal habit of administering purgatives in gastric and intestinal upsets, without waiting to establish a diagnosis. All are aware of the anatomical variations and anomalies met with in abdominal surgery in the young. The cecum may not have rotated or descended properly. The appendix itself is relatively much larger, longer, more funnel-shaped, contains a larger proportion of lymphoid tissue, and is much more delicate in structure. Its position is less constant, usually being located above McBurney's point. It may be found anywhere in the abdomen—in the pelvis, under the liver or well over on the left side. (I once operated upon a child in whom the under surface of the liver formed the upper wall of an appendiceal abscess. On another occasion I operated upon a left-sided, strangulated, inguinal hernia in a four-months-old infant and found the appendix and cecum in the sac.) When perforation of an inflamed appendix occurs, the delicate omentum, often veil-like in thinness, offers but a feeble barrier to the spread of inflammation. Knowing these anatomical differences, it is easy to understand why appen-

dicitis is often much more insidious in onset, the spread of inflammation more rapid, the intoxication more overpowering—in short it is not difficult to see why the disease is so serious in the very young. On the other hand, it is not reasonable to suppose that the tendency to perforation, abscess formation or spreading peritonitis, etc., is the rule in the appendicitis of this period. It is far more probable that the majority of cases, undiagnosed, it is true, go on to spontaneous recovery. I know that many cases of indigestion-colic, gastritis, gastro-enteritis, acidosis, cyclic vomiting, etc., and many acute infections accompanied by abdominal symptoms (pain, vomiting, fever, etc.) are in reality instances of unrecognized appendiceal disease. In every attack of acute abdominal pain, with vomiting and fever, it is a safe rule to assume that the appendix is involved, and then proceed to verify or rule out this suspicion. The habit of concluding that such disorders are due to dietary indiscretions and that a purgative will relieve the indigestion-colic is responsible for many deaths. Now it is a lamentable fact that there is still a high mortality—the mortality of purgation and procrastination—in a disease which should be almost free from deaths.

In Bolling's¹ series of 123 cases the mortality was only 2.5 per cent in children from six to fifteen years of age, while in the group under five years of age the mortality was 20 per cent. Over 90 per cent of this second group had an abscess or rupture of the appendix with more or less widespread peritonitis. In Beekman's² review of 145 cases in the Bellevue Hospital service, there were twenty-one cases up to six years, with perforation in every case, and with a mortality of 35 per cent. In Helmholtz's³ report of the 15 cases under five years of age at the Mayo Clinic the mortality was 47 per cent. Abt⁴ compiled from the literature eighty cases of appendicitis in children under two years of age with a mortality of 50 per cent.

These appalling figures mean but one thing, that only the worst cases, as a rule, are seen by the surgeon, and that the mortality is due to failure to recognize the disease early, or to gross mismanagement in administering purgatives when the diagnosis is in doubt. In my own series I have operated upon sixty-two little patients ranging in age from 4 months up to the sixth year, with six deaths, giving a mortality of 9.69 per cent. Eighteen cases, from 4 months up to 27/12 years of age, all recovered. There were two deaths be-

*Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

supply, and the spreading of sound knowledge concerning the feeding of infants. It has as yet done little or nothing to protect the adult members of the population against the degenerative diseases which undermine the function of the vascular system, the kidneys and the pancreas. These diseases take a heavy toll of life of comparatively young people.

There is a great interest in the results of modern nutrition research, but a lack of appreciation of what is most important in their application. Thus, we have a vast fund of knowledge as to the cause of scurvy, beri-beri, ophthalmia due to lack of vitamin A, famine edema, war dropsy, pellagra, rickets, sterility due to deficient diet, defective teeth due to malnutrition during their development, and impairment of the quality of the milk through inadequacy of the food of the lactating animal. These conditions have all been produced experimentally in animals by diets faulty in specific ways. The deficiency diseases are all so spectacular as to cause wonderment that such tiny quantities of suitable vitamin preparations can induce such profound changes in the condition of a sufferer. Those of us who have had long experience in observing experimental animals are, however, deeply impressed with the evidence which we see of impending danger during the period preceding the time when clinical criteria are visible when the diet is at fault. There are foreshadowings of each type of nutritive disaster which are not so specific as the final dramatic climax in which there is failure of some specific structure or function. These are rarely considered by those who speak of the absence of disease of dietary origin in a given region. This attitude has tended to dispose of the matter and has given the impression that the diets of the people were so satisfactory as to have no bearing on the general health.

These foreshadowings in experimental animals to which I refer are changes in the texture and appearance of the hair, its lack of lustre, to loss of the usual solicitude of the animal for grooming itself, the drowsiness or

nervousness or irritability, abnormal apprehensiveness, infanticidal mania, cannibalism, etc., to which we have so frequently referred in describing experiments. These, as well as the disturbances of growth, modification of body form, such as the stockiness of animals suffering from disturbances of bone growth, faulty posture, and the attenuation of form which finally results in emaciation, are more or less specific as sequelae of defects of diet of specific kinds. They are manifest sooner than are the symptoms usually attributed to marked deficiency in diet, and doubtless appear far more frequently than these. They are the intermediary results of malnutrition, and may be due not alone to vitamin deficiency but to unfavorable composition of the inorganic moiety, or the consumption of poorly constituted proteins, etc., as well.

I believe I have never over-emphasized the importance of vitamin deficiency as compared with other defects of diet. Probably a lack of calcium, and the taking of a diet disproportionately rich in phosphorus, and lacking in the vitamin D, are the faults of greatest significance in the diet of many Americans. I have never liked to discuss vitamins in nutrition apart from a consideration of other important factors. The result is likely to be misleading, for, indispensable as are the vitamins for the maintenance of life and health, their importance is no greater than that of any other indispensable nutrients. It is especially important to disseminate the idea that any pronounced deviation from the optimal constitution of the diet will show itself in premature failure of one or another function sometime in the life history of the individual. Perfection in development and the adherence throughout life to a diet approximating the optimum as nearly as possible should be the objective. It is beyond the scope of this article to consider the ways and means for accomplishing this. I have set forth my views on the practical application of the science of nutrition in daily life elsewhere.*

* *Foods, Nutrition and Health*. E. V. McCollum and Nina Simmonds, 1925 East End Post Station Box No. 25 Baltimore Md. Price \$1.50 postpaid.

have never seen a hernia follow in a clean case and it is exceptional to see one in drainage cases, where this method is properly carried out. After operation, in selected instances, measures which combat shock, tissue desiccation and toxemia, such as external heat, appropriate stimulation and sedation, and the introduction of fluids by intusion, hypodermoclysis or proctoclysis, are indicated.

CONCLUSIONS

(1) Appendicitis is not a rare disease in early life, but it is rare to have it recognized early.

(2) Contrary to popular teaching, young subjects show remarkable resistance in combatting this disease. There is practically no

mortality in properly handled cases, and the mortality is far less than one would expect in the grossly mismanaged ones.

(3) Purgation and procrastination account for the majority of the deaths.

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COOPERATION FOR PREVENTING DELINQUENCY *

By RALPH P. TRUITT, M.D., NEW YORK CITY

Director Division on Prevention of Delinquency National Committee for Mental Hygiene

CRIME has a tremendous fascination for all of us—it is dramatic, always finds newspaper space, furnishes political issues and appeals at once to the Jesse James and the reformer in each of us.

Crime has a status of its own, so much so that, in some instances, committing a crime of the sentimental sort gives liberal entree to the news columns and occasionally paves the way for notoriety on the stage. However, it matters little whether the question involved is one of "moral turpitude," scandalous finance or jewel robberies—crime has an appeal to all of us.

So-called "crime waves" are, as a matter of fact, constantly with us although they do not always gain "wave" prominence in the public eye. Crime crusades fall in line with the waves and are always directed toward the wholesale disposal of the problem. Crusades invariably arouse the politician, the violent untrained reformer, and the frightened newspaper public and place in the hands of these people the whole question. If crime waves and crusades do nothing else they give the police a chance to blame the automobiles, the lack of swift cars and the smallness of their force to cope with the situation, they enable prosecutors to blame the bail bonding nuisance, the slowness of the court machinery, the police and the things blamed by the police, they afford an opportunity for judges to blame any or all of the things mentioned and in addition to lay their specific troubles to the jury service they receive, the laws under which they operate and the "coddling" parole system.

The ever present topic of crime furnishes an

open season not only for public officials, but for the public at large and there is little hesitation on the part of any of them to rush into print and appear before Kiwanis and Rotary clubs with their hurriedly gathered ideas on any phase of the crime situation. They run the gamut of causes from prohibition to rolled stockings and as amateur criminologists offer many solutions. Crime is one of the favorite topics of the day for interviews or sermons but rarely do any two people—even a judge and a minister—agree about its causes and the methods at fault in handling it. The fact that it is left to popular opinion as a burning moral issue accounts for our failure to deal with it and our preoccupation with its spectacular results to the neglect of study of its sources.

After all, the question is too complicated for laymen to handle and yet it is a problem which no one group of so-called "experts" can solve by themselves. The psychiatrists and criminologists have obtained an uncertain foothold in this field but their weakness arises from the fact that they are professionally limited to special phases of the subject and their limitations have been so obvious that the layman discredits whatever contribution they have made as sentimental and protective of the criminals. Crime does not spring from a single root and we psychiatrists are going to do very little about it until we convey to other professions their responsibility for studying the problem from their angle and joining us in a united attack on it.

There may be some doubt about the application of scientific medical principles to the study of crime and its treatment. The common belief that the function of medicine is limited to the treatment of physical disease, its cause and pre-

* Read before a joint session of the Public Health Section and the section on Neurology and Psychiatry at the Annual Meeting of the Medical Society of the State of New York March 31 1926.

tween 3 and 4 years, two deaths between 4 and 5 years, and two deaths between 5 and 6 years of age. Four boys and two girls were among the fatal cases.

The etiology is a matter of conjecture in the majority of cases. So many times, however, have I seen appendicitis develop during an attack of tonsillitis or influenza or other acute infection that I am always ready to blame the appendix, if pronounced abdominal symptoms are manifest, and to consider the possibility of an hematogenous infection. The presence of fecal concretions in an appendix means faulty drainage and is always associated, in my experience, with more or less inflammation of this organ. In several instances I have found foreign bodies as a cause of appendicitis. In this connection might be mentioned intestinal parasites, notably pin worms—as a causative factor. Tuberculosis of the appendix was found in one or two of my cases. For several years, when operating upon right sided inguinal hernia, I have made it a practice to examine the appendix through the internal abdominal ring. About seventy-five per cent of such cases will show such definite macroscopic and microscopic evidence of disease as to warrant the removal of the appendix. Again I wish to call attention to the fact that appendicitis or appendicular irritation is one of the most important factors in causing intussusception in infants. I would like to ask that the relationship between hernia and appendicitis and between appendicitis and intussusception be studied by other surgeons.

I can add nothing to what has been said over and over again as to the symptomatology, the diagnosis and differential diagnosis and as to treatment. When an adult develops acute abdominal pain with vomiting and fever, he tells the world, including his doctor, about it, and the first thing his doctor thinks about is appendicitis. This organ is always given a third degree interrogation. When a child develops a similar condition, about the last thing that is thought about is appendicitis. Often—too often, in fact—no physical examination is made until late in the disease. I believe that this failure to examine a young subject, rather than the difficulty of interpreting such an examination is responsible for the relatively large number of late cases seen by the surgeon. In patients under $2\frac{1}{2}$ or 3 years of age examination under light narcosis is often necessary in order to establish the diagnosis. Here all subjective aid is lacking, and the history as related by the parent and the physical examination must settle the question. Point or localized tenderness is the most important objective sign, and when associated with abdominal pain, which tends to focus in

the appendix zone, nausea and vomiting, and rise of temperature shortly after the onset of pain, gives sufficient evidence upon which to base a diagnosis of appendicitis. The white and differential blood count may be of help, but often it is misleading and it is not so reliable as in older patients.

In the differential diagnosis, it is important to exclude pleural and pulmonary inflammation and lesions of the right kidney or ureter. A circumscribed or central pneumonia, or a diaphragmatic pleurisy, without physical signs may be mistaken for appendicitis. The minutest attention to details is necessary in order to avoid errors. Winters years ago made the statement that "abrupt onset, high temperature, pungent heat of skin, somnolence, alteration of the pulse—respiration ratio, misplacement of respiratory pause, short, quick, audible expiration, remittent type of fever, make a clinical picture labelled pneumonia, even with every physical sign absent." If in doubt the question can be settled by X-ray examination of the chest. Now I am not going into the differentiation of appendicitis from (1) gastroenteritis, (2) intussusception and other forms of intestinal obstruction, (3) acute mesenteric adenitis, (4) peritonitis of unknown origin, (5) pyelitis or stone affecting the right kidney or ureter, (6) pyosalpinx, inflammation or growth of the right ovary, (7) inflamed, undescended right testicle, (8) duodenal ulcer, (9) infections of the right hip, etc. What I want to emphasize is this fact, that appendicitis may complicate pneumonia, influenza, tonsillitis, measles, typhoid fever, and the various affections mentioned. Never be satisfied with a single diagnosis of measles or tonsillitis, or what-not in the presence of pronounced abdominal symptoms, otherwise appendicitis is occasionally going to be overlooked.

Early recognition and prompt surgical treatment of appendicitis give almost uniformly good results. Delay in the recognition of the disease, or in instituting surgical treatment, gives not only a high death rate, but the morbidity is enormously increased among the patients who recover. Today the surgical treatment is fairly well standardized and its details will not be repeated before this body of surgeons. I would like to mention one or two points, however, which have proved helpful in my own experience. After trying out various incisions, such as the McBurney intermuscular separation, the Deaver split rectus approach and the Kammerer para-rectus operation, I believe that the latter incision (the para-rectus) is the best for all types of cases, and it is by all odds the best approach to the appendix if drainage is required. I

dowment and intelligence and investigate his behavior reactions as responses of the total organism to the environment and experience to which it has been exposed. The method is medical even though the germs we seek may reside in such non-medical fields as family relationships, school conditions and methods, housing and neighborhood problems, industrial maladjustments, social difficulties and poverty. I am stressing the fact that the method is essentially medical because this point is so little appreciated even in the public health group. The average physician fails to see that the field of personality and behavior disorders is a medical field simply because the content of that field seems to belong to such foreign provinces as those of morals, religion and the law. Psychiatry has made a great advance in identifying the field of behavior as its natural territory but its control will not be assured until the whole profession recognizes the content of this specialty and joins the psychiatrist in fighting for a truly medical scientific approach to problems on which every layman thinks himself an expert.

The average community is unable to meet the obligations imposed by such preventive work as child guidance because the community as a rule is not yet meeting the problems of health, schools, housing, unemployment, dependency of unavoidable sorts, etc., which contribute to problems of personality and behavior. In addition, there is often a feeling that preventive work is a luxury and perhaps child guidance work will have to be chiefly carried on by the various foundations until communities understand their needs and desire assistance in dealing with the problem child. The expense of developing methods for preventing delinquency should no longer be an excuse for neglect. All of us will agree, I believe, about the costliness and the failure of present methods of dealing with crime. Most of us will undoubtedly recognize the difficulties of working out a scientific approach so long as the entire problem remains in the hands of politicians and lawyers who scoff at the views of medical men and sociologists. Available statistics indicate that about 500,000 men, women and children enter various correctional and penal institutions each year in the United States and a recent estimate of the annual cost of crime reaches a total of ten billion dollars.

However, the arguments for prevention cannot be based as yet on financial economy. Prevention is expensive and its results are not always convincing to those who feel that what is prevented might not have developed in any case. We who have been working to formulate methods of preventing delinquency have discovered no magic prescription. We have discovered through diagnosis and treatment that prevention involves innumerable fields other than our own and that constructive work for eliminating the causes of delinquency demands that those responsible for other phases of human welfare see their job as related to ours. For instance, two great preventive agencies are the parents and the schools. They are directly concerned with the physical, mental and emotional development of children and the methods they use determine the fate of the child long before the question of delinquency or mental health arises. It is with them that we have to work out methods of preventing delinquency. This entails giving them insight into the factors operating to produce mental and physical health, interesting them in co-operation for the study of the material with which they deal, working with them to shape methods for handling the everyday problems even the normal child presents and then exploring other fields of human activity to locate in them their peculiar foci of irritation. Prevention of behavior problems is no monopoly of the psychiatric group whose isolated efforts involve a struggle against all sorts of undercurrents in the fields of industry, law, education, public health, housing, politics, etc. Psychiatry will operate in a vacuum until it can join forces with preventive work in other fields and evolve with them common methods of preventing difficulties which contribute to undermine public health—mental and physical. Our methods for preventing delinquency will be only partially effective as long as allied groups fail to understand our purposes and to see how our work may re-enforce theirs. We have the essential scientific machinery for attacking the problem and many unexploited resources in the preventive work of other fields. We need co-ordination of effort and above all general medical support to remove the question from the field of popular speculation and apply to it scientific methods of study and treatment.

PERIODIC HEALTH EXAMINATIONS*

By CHARLES S. PREST, M.D.

UPON the invitation of your Chairman I am glad to outline to you the conduct of the campaign for the promotion of the habit of periodic health examinations in

* Read at the Annual Meeting of the Medical Society of the State of New York at New York, March 31, 1926.

Kings County. This work is not a new story in Kings. In 1915 the promotion of periodic health examinations was included as a part of the program of the Brooklyn Tuberculosis Committee, this committee then, as now, being the official local representative of the National

vention, still prevails in some quarters even though it is some years since medical boundaries were extended to include such disorders as "lunacy." An enlightened public now realizes that the very term "lunacy" is a relic of the past, mental diseases are losing their ugly social stigma and psychiatry is more and more understood as that branch of medicine dealing with personality and behavior disorders. Certainly the entrance of medicine into this field has resulted in constructive changes in the treatment of mental disease, a healthier attitude in the general public and the establishment of the field as a professional one for scientific study.

While the behavior disorders of the mentally diseased and the criminal do not necessarily follow the same pattern, they spring from related roots in the maladjustment between the individual and his environment. If we are correct in assuming that behavior is the expression of the whole organism, through its various system activities, to environment, experience and training surely medicine is interested in attempting the study of crime. It must be accepted that crime represents behavior "gone wrong" although its pathology may not be studied like bacteria under the microscope. Preventive medicine has frequently ventured afield from bedside medicine in studying those conditions which influence the health and efficiency of individuals and the general public health movement has been organized to improve man's environment to eliminate disease factors. Public health efforts have penetrated into such related fields as sanitation, industry, education, social welfare, housing, etc., professional alliances have been formed and accurate ideas of the purpose of public health work have been transmitted to other strategic groups. Medicine's method of approach to general public health must be similarly applied to the problems of crime. Scientific medicine cast aside the popular prejudices that had resulted in jailing lunatics, refused to be content with dismissing lunacy as a moral offense and instead accepted it as a diseased condition to be scientifically studied and treated. Just so should medicine refuse to allow crime to rest in the hands of excited laymen more intent on punishment than understanding. Medical pressure should be brought to bear for recognition of the subject as one properly within the province of medicine where its causes and treatment can be studied objectively, and preventive methods may be evolved.

Prevention worthy of the name offers few of the popular thrills associated with crime crusades. Only when the scientific discovery of an elusive bug or the cure for a distressing malady is found, is public interest aroused. Society for the most part is easily satisfied and points with pride to its institutions for contagious diseases, for the insane and for criminals. Medicine has

had to take the initiative in progressing beyond its early achievements in caring for end-results to work preventing the development of those results. It has had to rescue various problems from purely lay control, study them without prejudice and then educate the public to a more constructive point of view.

In dealing with delinquency, scientific attention has been increasingly focussed on childhood. This is in keeping with preventive medicine in other fields. The problem child is the forerunner of the problem adult as the clinical histories of the majority of the adult personality and behavior problems demonstrate. However, there is considerable impatience with psychiatric work for children because of the apparent triviality of children's problems. The present situation is not unlike that period in medicine when children were supposed to have all the infections and contagions traveling about so that they would "get over them" while young. The chief difference is that children are expected to "outgrow" their psychic infections and contagions without even the equivalent of treatment accorded children's diseases. The accepted basis for work with problem children is the fourfold attack from the fields of medicine, psychiatry, education and social work and the assumption that there are definite causes for personality and behavior problems outside of original sin. Fundamentally, our method of attack is a scientific medical one, that is, we investigate conduct disorders objectively as symptoms indicating the operation of underlying factors. We cast aside our moral prejudices and social judgments and think in terms of cause and effect. Even in the simplest behavior problems we find that the difficulty has multiple roots in every phase of the child's life and that the child's behavior is strictly determined even though the germ is not a specific organism. Take such a symptom as stealing. A youngster may steal because he has an unsatisfied craving for sweets, or because he has the desire for playthings or movies which other children have, or because he has never grasped the distinction between his and other people's property. His gang may steal and he joins in to prove his right to membership. In short, the stealing may be traced back to a physical condition, to a lack of normal opportunities, to bad neighborhood influences, to a misguided attempt to stand well with others, to the poor example set by the parents or any of a hundred other conditions. It is as unjustifiable to treat stealing as an entity in itself as it would be to treat fever as a disease instead of a symptom. And though society will continue to punish such offences, such measures are as irrelevant to treatment of the delinquency as they would be to a toxic delirium. To understand a given behavior problem we have to explore the child's physical condition, estimate his native en-

found to be financially unable to pay a private physician for this service

After the literature and health examination blanks had been distributed to the members of the medical profession of the borough and the various meetings of physicians held, upon the recommendation of the Medical Committee the lay group inaugurated their campaign for the promotion of health examinations among the lay public. This campaign has included a large amount of literature for distribution, the showing of several series of car cards and station platform posters in every subway, surface and elevated car of the borough and on every station platform, and a large amount of newspaper publicity urging the adoption of the habit of having a periodic health examination under the slogan coined by the committee "Have a Health Examination by Your Physician Before Your Birthday." In every instance the point was stressed that these examinations should be made by the physician of the choice of the individual, no examinations being conducted by the committee except in the dispensary of apparently healthy poor persons referred to it.

Health examination blanks are provided physicians upon request without charge, each physician being asked to detach and return to the committee a notation as to the findings and recommendations, without identifying marks as to the person examined. These are for tabulation and statistical study, reports of which have been made at various times.

In Queens Borough similar work has been carried on by the Queensboro Tuberculosis Association, they distributing there the American Medical Association health examination blanks and making available the manual in regard to periodic health examinations of the American Medical Association to every physician.

In addition to the above, upon the recommendation of the speaker, the Brooklyn Tuberculosis Committee and the Queensboro Tuberculosis Association have each made an appropriation of \$1,000 for post-graduate medical education in preventive medicine during the current year. This is to be carried on in cooperation with the Committee on Post-Graduate Medical Education of the Kings and Queens County Medical Societies. This is mentioned here as it is expected that post-graduate medical education regarding periodic health examinations will be included as a part of this work.

While the acceptance of the plan of periodic health examinations of apparently health persons by physicians generally has not met with

unanimous response by any means it has been enthusiastically received by many. The pediatricists particularly are found to be conducting such examinations in increasing numbers, parents being found not only willing but anxious to have their children examined regularly by their physician although they do not generally apply for such examinations for themselves. The outlook is most hopeful, however, and has already resulted in materially increased practice for a number of physicians, they by this method being consulted for professional advice much more frequently than in the past.

The Public Health Committee of the Medical Society of the County of Kings has recently issued a special report on periodic health examinations of apparently healthy persons which is available for a small charge upon application to the Society. This includes copies of the form of blank prepared by the American Medical Association as well as that by the Brooklyn Health Examination Committee. Copies of many of the pamphlets in regard to health examinations issued by the Medical Society and the Health Examination Committee are also included as well as considerable other information of value in connection with this work.

Those present are no doubt familiar with the fact that the Metropolitan Life Insurance Company has prepared an interesting motion picture for the promotion of periodic health examinations among lay persons. The title is "Working for Dear Life" and I am advised it is available for exhibition without charge through application to any local Metropolitan agent. The Brooklyn Committee secured six copies of this film and through the cooperation of the Theatre Owners Chamber of Commerce, over 200 showings were given in Brooklyn, as a part of the regular program of some forty theatres, thus carrying the message of health examinations to a very large number of people. In addition to this the New York Tuberculosis and Health Association has about completed a technical motion picture regarding periodic health examinations for exhibition before physicians. This is to have a primary showing very shortly and it is expected it will be exhibited at the meeting of the American Medical Association in Dallas this year.

The speaker is glad to relate this history of the work in Kings and Queens Counties based upon what has been proven to be a sound and ethical plan and if we can help in promoting this work elsewhere we will be glad to render any assistance that we may.

Tuberculosis Association for the boroughs of Kings and Queens. When the Queensboro Tuberculosis Association was organized by the Brooklyn Committee in 1920 the promotion of periodic health examinations was included as a part of their program and they are still continuing this work in the Borough of Queens.

Upon the adoption of the policy of promoting periodic health examinations by the fourteen National Associations represented in the National Health Council in 1923, after the endorsement of such work by the American Medical Association in 1922, the Brooklyn Tuberculosis Committee was invited by the National Health Council to assume responsibility for the conduct of this work in Brooklyn, and through its local, the Queensboro Tuberculosis Association, in Queens Borough.

In response to this Mr. Frederic B. Pratt, the President of the Brooklyn Tuberculosis Committee, called a dinner conference of representatives of the Kings County Medical Society, the Department of Health, the Public Health Committee of the Chamber of Commerce, and a number of representative citizens to consider the invitation to undertake this work. The whole matter was discussed at considerable length and it was finally decided to organize a special committee of representatives of the various health agencies of the borough and a number of representative citizens to be known as the Brooklyn Health Examination Committee, they to be asked to be the sponsor of this work. Upon recommendation of the speaker, it was decided to carry on this campaign separate and distinct from the work of the Brooklyn Tuberculosis Committee, the health cross, the emblem of the work of the latter committee, not to be carried on any of the literature or other material of the Health Examination Committee. The purpose of my suggesting this was to divert the campaign in the minds of the general public from one against tuberculosis alone, it being our experience that the public considered periodic health examinations in this limited sphere only.

The Brooklyn Tuberculosis Committee volunteered to underwrite the campaign for the first year by an appropriation of \$5,000. The same amount was provided by the Brooklyn Tuberculosis Committee for this work last year and a like amount has been granted for the current year. The expenditures for this work have somewhat exceeded these amounts each of the past two years, the deficit being met by the Brooklyn Tuberculosis Committee. In addition to the financial grants made by the Brooklyn Tuberculosis Committee, part of the time of the speaker was made available to the Health Examination Committee as well as such stenographic and clerical assistance as needed.

After the formation of the Health Examination Committee with the appointment of a prominent resident of the borough as a lay chairman, it was immediately decided to place the responsibility for the promotion of the work among physicians in the hands of a medical sub-committee of which Dr. Glentworth R. Butler accepted the chairmanship. The promotion of the work among the laity by the general committee was withheld until the medical committee might organize the work among the physicians of the borough. With the close cooperation of the Public Health Committee of the Medical Society of the County of Kings the Medical Committee held frequent meetings and whipped into shape a form of blank for adults and another for children that provides a carbon copy of the examination made by the physician to be given to the person examined. The committee issued a special announcement together with special literature in regard to health examinations to the medical profession of the borough and placed a supply of blanks in the hands of each of the twenty-seven hundred odd physicians. Upon presentation of the plans of the Brooklyn Health Examination Committee by the chairman of the Public Health Committee of the Kings County Medical Society the Society unanimously endorsed the work at a regular meeting. The Medical Society of the County of Kings devoted a special meeting of the Society to the promotion of the work. It also devoted one of its regular Friday afternoon lectures to the demonstration of the conduct of a periodic health examination. Subsequently the Public Health Committee of the Medical Society arranged for the examination of ninety-seven physicians by their confreres, and at various times have issued a number of leaflets to the medical profession regarding periodic health examinations.

Intercurrently with this the motion picture "Working for Dear Life" was shown at a staff meeting of each of the hospitals of the borough, representatives of the Medical Committee of the Health Examination Committee addressing the staff on the subject of periodic health examinations in each instance.

Upon the recommendation of a special committee of hospital representatives the Health Examination Committee established the first licensed dispensary for the conduct of periodic health examinations of apparently healthy poor persons in the Brooklyn Bureau of Charities building and have continued this dispensary. This is only for periodic health examinations of apparently healthy poor adults and children referred to the committee by physicians and social and welfare agencies and only such persons are examined as after careful inquiry are

ARTIFICIAL RESPIRATION

About 2,000 deaths occurred in New York State during 1925 from causes in which artificial respiration is the proper treatment, of which 857 were due to drowning and 852 to gas suffocation. Probably an equally large number of cases recovered after artificial respiration had been done. It is a conservative estimate that at least 5,000 persons of New York State require artificial respiration each year. This is an average of about one case per doctor once every three years. Yet any doctor, or any other person, may at any time, be confronted with a case requiring artificial respiration. The method may be learned so easily that it is taught to boy scouts, and to employees in gas and electric companies, and when an emergency arises, these amateurs are able to apply the method with skill. No doctor should permit a layman to excel him in the knowledge of any life saving method.

The suggestion for this editorial came from the medical staff of a small hospital. During its monthly meeting a call came for the pulmotor. There was a delay in finding it, and then it was discovered to be out of order. One member of the staff remarked that he had heard that some other method was as good as the use of a mechanical device, but no one could speak with authority and knowledge. A committee was then appointed to study the subject, and present its findings at the next meeting. The report of that committee clarified the whole subject in the minds of the members of the staff.

A decade ago the insurance companies writing accident policies for gas and electric light companies advocated that mechanical devices for doing artificial respiration be purchased by the insured and by hospitals and fire companies. These appliances were advertised so widely that now, when a case of drowning occurs, everybody thinks of a pulmotor as the very best means of restoring life. There are two serious objections to a mechanical device.

1 The delay in bringing it to the patient.

2 It is no better than the "Prone Pressure," or "Schafer" method, which any one can do anywhere that the patient may happen to be.

The whole subject of artificial respiration has been thoroughly investigated by the U. S. Government Bureau of Mines, and by Dr. Yandell Henderson in the Physiological Research Department of Yale University. Dr. Henderson presented a summary of his findings in the *Journal of the American Medical Association* for September 6, 1924. He specifically says that the Prone Pressure method is superior to any other method, or to a mechanical appliance, in causing air to enter and leave the lungs, and he advises

its immediate use in all cases requiring artificial respiration. The only additional measure which he advocates is the use of oxygen containing five per cent of carbon dioxide as a stimulant of the respiratory center in cases of carbon monoxide poisoning. Every doctor should know of Dr. Henderson's work, for it is the basis on which the modern standard of doing artificial respiration are founded.

A doctor called to a case of drowning, gas asphyxiation, or electric shock must choose one of three well-known methods of doing artificial respiration, namely, 1, the "Sylvester" method in which the patient lies face upward, 2, the "Mechanical Device" method (the pulmotor, for example), and 3, the "Prone Pressure" or "Schafer" method. The doctor who uses the Prone Pressure method has the satisfaction of knowing that it is the standard method that is approved and advised by the highest scientific authorities. This is a legal point of great importance. The law of negligence may apply to a doctor who fails to use the best method of artificial respiration, and, vice versa, the law will uphold him if he uses it to the exclusion of all other methods.

Doctors should know another legal point. The return of breathing may not take place until artificial respiration has been done for two or three hours. A doctor acts to his own peril when he pronounces a patient dead and orders the cessation of artificial respiration. The insurance companies quote cases in which laborers have persisted in doing artificial respiration after doctors have pronounced the patients dead, and have restored the patients to life,—to the discredit of the doctors. It has even happened that a doctor has forbidden a workman from continuing the artificial respiration for the reason that the patient was dead, and the workman has replied, "If you say the patient is dead, you have nothing to do with the case. I am going to do artificial respiration for three hours, if necessary, as I have been taught." The workman is right in taking this attitude.

A physician does not really know how to do artificial respiration unless he not only practices it on a subject, but also allows some one to do it to him. When he lies upon the floor and lets a husky colleague squeeze the breath out of him, he realizes the exact amount of pressure to apply, and how and where to apply it.

The importance of this subject would justify its presentation as a part of the educational work of the Medical Society of the State of New York.

EDITORIALS

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For list of officers of County Medical Societies, see July 15 JOURNAL, advertising page XIII

FALL ACTIVITIES

The full resumption of medical activities in the autumn finds the Medical Society of the State of New York well prepared for its fall and winter work. This number of the JOURNAL records the organization of the Grievance Committee, the completion of plans for the first statewide registration of physicians, the assignment of two Deputy Attorney-Generals for the enforcement of the Medical Practice Act, the first official conference of secretaries of County Medical Societies, and the plans for the annual meetings of seven out of the eight District Branches.

The fall opens auspiciously for organized medicine in New York State. The stimulus of the State and District Branch Societies should be felt in the county medical societies, which also resume their work. More of their work should be recorded in this JOURNAL. The editors cannot go to the county societies to seek information—the news must come from the local secretaries and reporters. The pages of the JOURNAL are open to the local societies for publicity and for mutual helpfulness.



MEDICAL PROGRESS



Tannic Acid in the Treatment of Burns — About a year ago E C Davidson, writing in *Surgery, Gynecology and Obstetrics*, suggested the application of tannic acid in the treatment of burns. His method is first, after a preliminary injection of morphine, to cover the burned area by dry sterile gauze pads held in place by sterile gauze bandages, and then to soak this dressing with a freshly prepared 25 per cent aqueous solution of tannin. The area is inspected at the end of twelve hours and every six hours thereafter until it is seen to be of a uniform light brown color, then the dressings are again soaked with the solution and, when no longer adherent, are removed and the surface is left exposed to the air, protected by a cradle draped with sterile linen, and kept warm if necessary by one or more electric bulbs.

In the *Annals of Surgery* for July, 1926 there are two articles reporting the experience of the writers with this method. The first paper, which was read before the American Surgical Association in May of the present year, is by Frederic W Bancroft and Charles S Rogers. The authors state that they have had experience with both the debridement and the tannic acid methods of treating burns. In general they give the preference to tannic acid, though they admit that in deep burns of small surface area, immediate debridement associated with skin grafting may be of value. The disadvantages of debridement are. It is a radical procedure with considerable operative risk to a devitalized patient. Islands of epithelium in the hair follicles and sweat and sebaceous glands may be sacrificed that might have been saved. The after-treatment is extremely painful and infection is very apt to occur. Finally skin grafting must usually be performed to cover the defect, but when infection is present the grafting may be of necessity so long delayed that a second debridement must be performed to provide a satisfactory field for the grafts. When tannic acid is used the burned area is covered by a firm mahogany colored membrane of a leathery consistency. The pain in this treatment is less than in any other procedure of which the authors have knowledge. The membrane should be left to separate of itself, for epithelization occurs beneath it in superficial burns while attempts at early separation cause bleeding and with bleeding comes infection.

The second paper is by Claude C Beck and John H Powers. The authors suggest a modification of Davidson's technique, for they say a more intimate contact between the burn and

tannic acid can be produced by spraying the burn with the tannic acid solution every half hour until the surface becomes brown or black. Blebs are opened as soon as they form and the epidermis is removed wherever it separates. The burn is exposed continuously to dry heat, for exposure to air seems to facilitate the process of tanning and exposure to heat hastens drying of the coagulum. The ordinary electric heater may be used for this purpose. An extensive burn can be coagulated completely by this method in sixteen hours, a smooth, indurated, and entirely insensitive surface being produced. Toxemia usually disappears in three to five days, and then arises the question as to the proper time to remove the coagulum. If the epidermis alone is involved, the crust separates at its margin as the new epidermis grows beneath it, and it should not be disturbed until it separates, which will be in about two weeks. When the entire thickness of the skin is destroyed the epithelization takes place only at the periphery. This is such a slow process that it may be advisable to remove a part or all of the crust, according to the extent of the burned area, and place grafts on the base. The crust may be removed by softening it with vaseline and cutting it free where it is attached to the subcutaneous tissues. A tannic-acid solution of approximately 25 per cent strength may be made by dissolving four teaspoonfuls of the dry powder in a glass of water.

Sodium Chloride in Cutaneous Burns —

Edward C Davidson has made a study in a number of cases of burns of various degrees to determine the disturbance of chloride metabolism, and has found in 31 cases a lowering of the whole-blood and plasma chlorides. The diminution was more than could be accounted for by alteration of the renal threshold, diet, fever, exudation, blood concentration, or vomiting. The evidence suggested that there was retention of sodium chloride in the tissues, in general quite similar to that observed in pneumonia. This disturbance of chloride metabolism seemed to be proportionate to the amount of tissue devitalized. The analogy between intestinal obstruction with accompanying toxemia and the toxemia of burns is a close one. These findings, the writer says, suggest the advisability of the administration of sodium chloride, in cases of extensive burns, in order to correct the deficiency — *Archives of Surgery*, August, 1926.

DR WILLIAM FRANCIS CAMPBELL

Dr William Francis Campbell, President of the Medical Society of the State of New York in 1913-14, died on September 7th, aged 60, after a brief illness following an operation on his gall bladder. He was a native of Brooklyn and spent his professional life there. He had been professor of anatomy and later of surgery in the

Long Island College Hospital Medical School, and was active in medical societies and in the practice of civic medicine. He was a skilled surgeon, a clear thinker, a satisfying teacher, and a genial friend. He enriched the practice of medicine and the medical profession with his skill and attractive personality.

THE CONFERENCE OF SECRETARIES

The official conference of secretaries of the County Medical Societies that was held on September 2nd was inspiring and encouraging. (See page 798) Those secretaries who are naturally doleful and pessimistic might have found confirmation of their preconceived ideas as some secretaries told of their discouragements and difficulties, but the optimists turned the same reports to their encouragement, as they said, "I thought our society was not up to standard, but it seems to be pretty good after all. We can show some of the others a thing or two."

But there was also an abundance of constructive reports given. In fact, one could run a successful county medical society by adopting the novel plans which had been put into successful operation in the several societies. Time was too short to report all the good things which the societies had done.

Meetings of the county secretaries have been

held during the annual meetings of the State Society for many years, and the secretaries have had an organization of which Dr Harrison Betts of Westchester County was the last president. The last meeting of the organization was held during the annual meeting of the State Society as described on page 342 of the April 15th issue of this JOURNAL. That meeting voted to request the Council of the State Society to authorize a meeting of the secretaries in the early fall. The present conference was the result of favorable action taken by the Council and it is understood that the old organization automatically ceases.

The success of the first official conference amply justified the wisdom of the Council's action in assembling the secretaries in conference at the expense of the State Society. It is to be hoped that the conferences will be repeated, and that in addition conferences of the secretaries will be held during the District Branch meetings.

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

The New York State Journal of Medicine for September, 1906, has an editorial on the Pure Food Bill, which had recently passed Congress. Looking backward over the good results of twenty years of enforcement of that act, one wonders why its passage was ever seriously opposed. The editorial follows:

"*The Pure Food Bill* The passage of the Pure Food Bill is one of the hopeful signs that Congress will help the people. Against the powerful opposition of the manufacturers of questionable foods and dangerous medicines, the newspapers which they control, the wealthy Proprietary Association, and United States Senator Hemenway, the bill passed the House by a vote of 242 to 17, and the Senate by 64 to 4. This result is really a victory for the press, both lay and medical, which for the past two years has been agitating this subject. Much credit is due to the periodicals which have been engaged in the exposure of the nostrums and patent medicine frauds. The bill prohibits the interstate shipment of adulterated or misbranded articles, and provides for the examination of samples of

foods and drugs by the Bureau of Chemistry in the Department of Agriculture. The standards for drugs are those recognized in the United States Pharmacopoeia and the National Formulary. The bill becomes operative January 1, 1907, but unfortunately it has no appropriation for carrying it into effect. It requires that medicines containing narcotics and poisonous drugs shall be labelled with the name and amount of such substances.

"This bill, if provided with means for its enforcement, will be of much service to the public. It will also result in the destruction of many of the so-called household remedies which would not be used were their contents known.

"An interesting feature is that the Department of Agriculture is called upon to pass judgment upon drugs and medicines intended only for human use. While that department is the best that Washington has for this work, and as it already has so many distinctly medical functions to perform, it might occur to some that we have here another argument for a Federal Department of Sanitation or a National Board of Health."

in type, presumably early cases in which the most burdensome symptoms were lightning pains and gastric crises. The latter, in addition to the suffering caused, may be so frequent as to interfere with alimentation, and accordingly Hesse set out to learn whether the malaria treatment could modify these painful symptoms. There was no immediate question of curing the patients. In every one of these 13 cases there was notable improvement in the symptoms, while it was apparent throughout that no patient had been damaged by the treatment, this also having been the experience of Bering and Nonne. The author would therefore recommend the treatment in cases of this type and believes that it should be of curative value, for the mischief is due to the spirochete which the fever produced by the treatment will destroy, while there is no other fever-producing remedy which can compete with malarial virus.

Postoperative Colonbacilluria—As Charles C. Pinkerton says in the *Archives of Surgery* for July 1926, the appearance of the colon bacillus in the urinary tract following childbirth, disease, or injury, either accidental or operative, offers a problem of great interest to the pathologist and clinician. Many cases exist of pyelitis or pyelonephritis following gynecological or general surgical operations in which the symptoms disappear after a short time but the excretion of large numbers of colon bacilli in the urine continues for an indefinite period. This may be due to the fact that the symptoms are the expression of a primary invasion by a streptococcus or staphylococcus and that they subside when the pathogenic organism is crowded out by the comparatively harmless colibacillus, or there may be a natural tolerance of the presence of the colon bacillus in the intestine which is only temporarily disturbed when the microorganism invades the new field of the urinary tract. But this reacquired immunity may be again disturbed by trauma or by physical depression from overwork or worry weakening the resisting powers of the organism.

As a result of the author's study of an unselected series of 130 general surgical cases, made to determine the incidence and significance of post-operative colonbacilluria the following conclusions are formulated: (1) The colon bacillus appears in the urine of a certain percentage of male and female patients who present themselves for surgical operation. The same organism appears in an appreciably larger percentage after operation, often without subjective or objective symptoms of a urinary tract infection. (2) Among female surgical patients of this series colonbacilluria was present from three to five times more often than among male surgical patients. (3) Colon bacilli occurring in the urine in abundance after operation is a presumptive sign of urinary tract infection, but in the absence of other con-

firmatory evidence does not always account for postoperative complications. (4) Gynecological cases, as a class, have colon bacilli present in the urine after operation probably more often than any other class of surgical subjects.

Light and Its Therapeutics—In discussing the manner in which artificial light produces its good effect, F. Howard Humphris (*Practitioner*, May, 1926, cxxvi, 5) says we know the rays are absorbed by the blood, and that the vital processes are profoundly and beneficially affected by them. Among the changes produced in the chemistry of the blood is an increase in its calcium, phosphorus, and iron content. Other effects are due to an increased activity of the vitamins, and others, again, to the stimulation of the endocrine glands. The general or systemic changes, as summarized recently by W. E. Dixon, are mild stimulation of the medullary centers, slight increase of pulse rate, stimulation of respiration, increased activity of the tissues, as shown by an augmented power of phagocytosis, and an enhancement of the hemobactericidal power of the blood. One of the best known results is the production of erythema which is brought about thus: the light excites the nerve endings in the skin, owing to the power of the light to create fluorescence in the presence of hematoporphyrin and possibly other substances in the skin. This fluorescence produces an irritation of the sensory nerves, which dilates the blood vessels in the skin and subcutaneous tissues. Another effect is pigmentation, which may be in some way related to endocrine balance. In addition to its antirachitic properties actinic light possesses rejuvenating powers. It has an undoubted influence for good upon muscular agility and mental activity. Aside from its recognized value in lupus, it has proved successful in a long list of dermatological conditions. Those in which it has given the greatest success in the writer's experience include furunculosis, eczema, alopecia, especially alopecia areata, onychia, chilblains, Raynaud's disease, psoriasis and pruritus. Other therapeutic uses for this agent are found in anemia, digestive disorders, and gastritis with acidity, and even gastric and duodenal ulcers have been benefited by it. It is useful in disordered menstruation, especially in those undergoing x-ray treatment for the production of an artificial menopause. Troublesome cases of neurasthenia and certain cases of nervous disease, especially insanity, in which it has been shown that the phosphate ratio is lowered, have shown marked improvement under ultraviolet radiation. It also has the power to relieve pain in sciatica, lumbago, and other forms of fibrositis and neuritis. It is an excellent remedy for a general "run down" condition and the ideal treatment of health, since prevention is better than cure.

A Substitute for the Argyrol Pack in Accessory Sinus Drainage—J B H Waring writing in *The Laryngoscope* for July, 1926, comments on the efficacy of the argyrol pack in promoting depletion of the tissues in congestion and inflammation of the nasal chambers and accessory sinuses, but says that this treatment is "messy" and on this account often objected to by fastidious patients. To remove this disadvantage he suggests the substitution for the silver salt, of a saturated solution of Epsom salts in glycerin which is not only colorless but inexpensive. It also keeps better than the argyrol and is ready for use over a considerable period of time if kept in a well stoppered bottle. The author admits that the substitute lacks the antiseptic properties of the silver preparation, but he thinks it is questionable whether much antiseptic power is exerted on the nasopharynx and sinuses as a whole during the stay of the pack in the nasal cavity. Incidentally Waring remarks that this magnesium sulphate solution will be found of value as an application for sprains, bruises, and other superficial congestions and inflammations.

Peroral Immunization—Hans Leiter traces the beginnings of this subject to 1905, when Wassermann figured as a pioneer in the attempt to increase the permeability of the gastric mucosa and thereby facilitate absorption. Bez-redka believed that he had found such a substance in bile and Wassermann corroborated him with the discovery that the bile salts were the responsible portion of the secretion. Later at the suggestion of Wassermann a research established that there is an entire group of substances which possess this property for which the term "hydro-tropic" was coined, the salts of bile being among the number although the most available member of the group seems to have been sodium benzoate. The present author has conducted experiments on rabbits who were made to swallow cultures of typhoid bacilli, Shiga dysentery bacilli, and other pathogens after previous ingestion of antigen substances, which in turn followed preliminary treatment with solution of sodium benzoate taken on a fasting stomach. The results were encouraging. In regard to man, the author admits his ignorance and the clinician will have to solve the problem himself. We have no idea as to what antigen doses should be given nor do we know what diseases are the most promising for the purpose. We do know that sodium benzoate is quite harmless and has been used freely in typhoid fever. The author suggests that the best diseases to test the buccal type of immunization should be typhoid fever, puerperal fever, and diphtheria among the specific infectious diseases, while furunculosis promises well as a type of a chronic recurrent malady.—*Deutsche medizinische Wochenschrift*, June 4, 1926.

Vaccinal Treatment of Syphilis—Professor Hilgerman has treated with fair success a number of cases of syphilis with inoculation of living spirochetes, the aim of this superinfection being to arouse the production of immune bodies in greater amount than occurs spontaneously. Especially does vaccination seem indicated in cases treated with arsphenamine because this substance may destroy *en masse* an enormous number of spirochetes with resulting exhaustion of immune substance in the tissues. The system then being without any defense, a negative phase develops. There is also a possibility of damaging the tissue cells permanently or of encapsulation of spirochetes with the possibility of neurotropic lesions. If in place of the large, sterilizing dose of arsphenamine we employ small and often repeated doses we run a risk of setting up acquired tolerance to the drug. The author first tried vaccination with ordinary cultures but obtained no satisfactory results, so then, with Krantz, he treated 47 patients by vaccination with secretion from open lesions which contained virulent spirochetes. The immune behavior to luetin was first ascertained and was found to be strongly positive in the second stage while in later syphilis and in latent and hereditary cases it was either weakly positive or negative. The "spirochetic pus" as the author terms his living material was inoculated intradermically and the reaction was much like that of luetin save that some patients negative with the latter gave positive results. Repeated injections gave the same reaction, thereby showing good defense. By continuing the injections the therapeutic efficacy was manifest, for the patients improved strikingly. But it was impossible to use the intradermic method for treatment, owing to the large lesions produced *in situ* which healed with scar formation. The injections were therefore given by the hypodermic or intramuscular route.—*Muenchener medizinische Wochenschrift*, June 11, 1926.

Treatment of Tabes With Inoculation Malaria—In recent years there has grown up a very extensive literature on the malarial treatment of paresis, but this has no counterpart in the management of tabes. One reason for this is apparently that tabetic patients are not interned together in large numbers like the victims of progressive paralysis. Several small series of cases have been reported, one of 23 by Bering and another of 36 by Nonne, which are analyzed by E. Hesse in the *Medizinische Klinik* of June 11, 1926. If we were guided by the results obtained in these 59 cases the malarial treatment would have to be pronounced a failure. But details are lacking as to the type or stage of cases treated, and the remedy cannot be condemned outright without further trial. The author thus far has had 22 cases of tabes under the malaria treatment but 4 of these are too recent for analysis. Of the balance 13 were remarkably similar



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

FIBRO SARCOMA—ROENTGEN RAY REACTION

This was an action instituted against a physician specializing in roentgen ray treatment. The complaint charged that in July, 1922, the plaintiff was suffering from phlebitis of her right leg, the inner surface of the right thigh, particularly the right groin, that at that time she consulted the defendant as such specialist and after examination she was advised by him to receive X-ray therapy to cure or alleviate her condition, that the defendant undertook to treat her with X-ray therapy and that by reason of his negligence and carelessness she was severely burned during the treatments so that the outer surface of her thigh became intensely swollen, discolored and extremely painful, and her left leg was severely burned. It was further charged that the plaintiff by reason of defendant's negligence was caused to suffer great pain, that the injury to her right leg resulted in an ulcer and her left leg was burned and swollen and that she was obliged to submit to operative interference in an endeavor to cure the injuries, that she had been and will be confined to a hospital for a long period of time, that she was permanently incapacitated and bedridden since the claimed X-ray burn and that her right leg may have to be amputated as a result of the injuries. She asked damages in the sum of \$75,000.

The defendant first saw the plaintiff when she was referred to him by a pathologist who had examined her at the request of her family physician. She had been under treatment for some period of time by the family physician who had diagnosed her condition as phlebitis. The plaintiff was a married Jewish woman about 32 years of age who had three children, her last pregnancy occurring about ten years prior to July, 1922, and six years before the appearance of the condition complained of. On examination her pelvis was found to be normal. There was no history of pelvic infection or any infection of the leg or foot to account for phlebitis. She stated that her present trouble was first noticed by the appearance of a small lump on the outer side of the right thigh, the condition being accompanied by pain. At that time she consulted the family physician who after examination, advised the extraction of her teeth. Eight teeth were extracted, but she was not relieved from the pain. She was confined to bed and the swelling of the lump on the outer side of the thigh increased. For several months this lump was treated with various applications of oils and ointments. A

similar mass appeared on the front of the thigh and then the masses seemed to come together. A nodule also appeared upon the left thigh. Thereafter she was referred to a pathologist who in his examination found there were hard lymph nodules in the right groin. After his examination she was referred to the defendant for X-ray examination.

On July 25, 1922, from different angles three radiographs were taken and a visual and manual examination made. As a result of these examinations the defendant found a large indurated mass in the right thigh beginning at a point in the middle of Poupart's ligament and extending downward for about eight inches, the margins of the mass were not clearly defined and the mass extended into the surrounding tissues, its outline was somewhat irregular, being about three inches by a half inch, the skin was brawny and red, the mass moved with the deeper tissues and could not be distinctly separated from the skin, the mass was adherent to the skin and involved the skin. As a result of this examination the defendant made a diagnosis of fibro sarcoma of the right thigh, nodule of the left thigh anteriorly, with no bone expansion and no osteomyelitis. He recommended X-ray therapy for the treatment of the condition.

On July 26th and August 2nd X-ray therapy was administered to the plaintiff. The portals of treatment and the factors of dosage were as follows:

Date	Location	Portal	Size	K B	Dose Filter	Dist.	Time	Diag.
July 26—	Anterior right				1/2 Cu			
	Thigh		M	200	1 Al	55	100	4 mills
Aug 2—	Lateral right				1 Cu			
	Thigh		9x12	200	1 Al	50	60	4 mills
	Anterior				1 Cu			
	Left Thigh		8x8	200	1 Al	55	25	4 mills

In the administration of the X-ray therapy the defendant gave sufficient dosage to the tumor mass in order that it be destroyed and so that every part of the tumor mass would be covered by the X-ray therapy. She was seen by the defendant on July 28th, two days after the first treatment, at which time he prescribed an ointment to be applied three times daily over the radiated area. The prescription of this ointment is a general custom with the defendant and is given to all patients who have received X-ray therapy. Accompanying the prescription were instructions to the patient not to apply any irritant to the radiated area nor adhesive plasters or

Pathogenesis of the Fox-Fordyce Disease—Walther Pick (*Archives of Dermatology and Syphilis*, June, 1926, xiii, 6) says that investigators have usually classified Fox-Fordyce disease as a nervous condition belonging to the neurodermatitis group. The cases which he observed, true to type, presented localizations in the axilla, mammae, and pubes, which correspond closely to the sites of predilection in acanthosis nigricans, impetigo herpetiformis, pemphigus vegetans, and erythrasma. The similarity between the localization of the Fox-Fordyce disease and that of pediculi pubis suggested the question whether or not the large sweat glands of the skin might have an etiological relation to the condition. A histological study of Pick's cases showed in the epithelium and papillary layer of the corium the commonly described characteristic changes. The principal changes were found in the deeper layer of the corium, which is almost entirely composed of so-called large and small sweat glands. The changes consisted in inflammatory manifestations in the region of the apocrine sweat glands. The more marked development of these glands in women explains the greater incidence of the condition in the female. There is a different development of these glands in different races. The more frequent occurrence of the condition in America, where mixed races are more common, suggests that a mixture of different races constitutes a basis for increased disposition. As a cause of the condition, a secretory disturbance in the region of the reproductive organs may be postulated. In accordance with this theory, organotherapy, consisting of the administration of ovarian and corpus luteum preparations, was distinctly successful in the two cases which Pick reports, relieving the patients of their suffering which up to that time had persisted in spite of treatment. The recognition of the pathogenesis of the Fox-Fordyce disease thus suggests at once an effective remedy, and makes it evident that the disease is an independent entity, as a result of which it can no longer be classified in the neurodermatitis group.

Radiographic Exploration of the Bronchopulmonary System by Means of Lipiodol—Since in the diagnosis of certain bronchopulmonary conditions it not infrequently happens that the roentgenological study of the chest, as usually carried out, fails to supply adequate and precise information, John Guy and H. C. Elder (*Edinburgh Medical Review*, May, 1926, n. s. xxxiii, 5) suggest the use of lipiodol. A preliminary injection of 1/6 gr. of morphine is given subcutaneously from one-quarter to three-quarters of an hour before

making the lipiodol injection. With the patient in the recumbent position local anesthesia is induced with 2 c.c. of a 2 per cent solution of cocaine over the cricothyroid space, the needle is passed slowly through this membrane and into the submucous lining of the trachea, and then into the lumen of the trachea itself. In making the lipiodol injection of 20 c.c. record syringe, specially modified for the purpose, is employed. In order to facilitate the injection the lipiodol contained is heated in a water-bath (at 50° to 60° C), thereby rendering it less viscid. The needle is thrust perpendicularly into the cricothyroid membrane, and the lumen of the trachea having been reached, a slight upward movement of the syringe enables the needle to slip down the airway in a direction parallel to its walls, thus avoiding injury to the mucosa. When the injection is completed iodine is applied to the puncture wound, no dressing is required. The amount of lipiodol injected varies from 8 to 10 c.c., in children from 7 to 14 years of age, to 30 or 40 in adults. While the injection is being made, it is necessary so to move the patient that the lipiodol will tend to gravitate toward the particular field under investigation. In the vast majority of cases, if reasonable precautions are taken, complications are not likely to arise. In view of the encouraging results thereby obtained in the diagnosis of broncho-pulmonary affections, the authors feel justified in urging more extended application of the procedure.

Action of Eucalyptol on the Bacillus of Tuberculosis in Vitro—Paul Fabry gives a brief account of some experiments carried out in the bacteriological laboratory of the University of Liege. Before he was able to report on his finds, other experimenters stated that the development of the bacillus in question could be arrested with a 0.4 per cent concentration of eucalyptol. The author had found that a much weaker concentration could secure this result. Even the vapor given off by eucalyptol is strong enough for this purpose. A solution of two-tenths per cent strength will hinder the development of the bovine bacillus. In testing the vapor, solid cultures of the bacillus on potato were used. After exposure to the vapor for a given length of time inoculations of guinea pigs with the culture proved negative. The dead cultures inoculated subcutaneously even improved the animals' general condition by a gain in weight. The bacillus of human tuberculosis is not mentioned in the brief report nor are any conclusions drawn as to the use of eucalyptol in clinical tuberculosis of any sort.—*Annales de l'Institut Pasteur*, June, 1926.

This condition was about the same when seen again in October, 1925

During the pendency of this action, the defendant pursuant to procedure, was examined by the plaintiff's attorney before trial, at which time the defendant gave testimony of his examination, diagnosis and treatment of the patient. When the action came on for trial the plaintiff testified in her own behalf. In the course of her testimony she stated that two days after the first treatment a redness appeared over the area which had been treated, that when she received this treatment she was lying on her back on a table, that at the time of the second treatment she was lying in the same position as at the previous treatment. Testimony of physicians was introduced in behalf of the plaintiff, part of which was to the effect that it was not proper and approved practice to give a second X-ray treatment over an area which had been previously treated and which treatment had produced an erythema. The family physician of the plaintiff in testifying in her behalf stated that her condition was one of phlebitis and not fibro sarcoma (although all the other medical testimony was to the contrary). On cross-examination he was shown to be unqualified to testify as to the treatment of such a condition by deep X-ray therapy.

The testimony of the defendant, taken by the plaintiff in the examination before trial, was read on behalf of the plaintiff as part of the

plaintiff's case. At the close of the plaintiff's testimony a motion was made in the defendant's behalf to dismiss the complaint on the ground that the plaintiff had failed to make out a cause of action and had failed to establish that the result complained of was due to any negligence or carelessness upon the part of the defendant in the administration of the X-ray therapy, it having been previously testified by the plaintiff's own witnesses that the factors of dosage used by the defendant were correct. The court, however, denied the defendant's motion and submitted to the jury the question of whether or not the defendant had treated the plaintiff over the area upon which an erythema had appeared. The testimony of the defendant being already in the case by virtue of the reading of the examination before trial, it was concluded not to put in any testimony on behalf of the defendant but rest the defendant's case upon the plaintiff's own testimony, counsel being of the opinion that the plaintiff had failed to make out a cause of action. The jury after an hour and a half's deliberation rendered its verdict in favor of the defendant. They felt great sympathy for the plaintiff and for her pain and suffering, but they further felt and so found that the treatment of the defendant was warranted and justified, that the occurrence of the erythema and the subsequent ulceration was not due to any negligence or carelessness upon his part and they therefore found in the defendant's favor.

ENCEPHALITIS—THIRD DEGREE BURNS OR TROPIC ULCERS

A physician was called to attend a fireman about twenty-six years of age. On examination he found the patient suffering from muscular tremors and pains in the legs, arms and back. He prescribed for external use menthol 1 dram, camphor 5 grains, chloral 1 dram, alcohol 4 ounces, he also prescribed phenacetine, salicylate and iodine and ordered a hot water bag. When he visited the patient on the following day he found the skin on the legs and back red. He then prescribed Burow's solution as a wet dressing. The physician saw the patient daily for about three weeks. A nerve specialist was then called in consultation who diagnosed the patient's ailment as myoclonic polio encephalitis. On the next day the patient was removed to a hospital and received no further treatment from the defendant.

The defendant had used this liniment for external use in a great number of instances and this was the first time that any reaction was caused thereby.

When the patient was last seen by the defendant there was a sloughing of the skin of the abdomen, of his back and thighs. The physician found that the patient was using hot water bot-

tles without a covering, which he thought may have caused the burns or that the ulcers may have been caused by the trophic condition.

Upon a physical examination made several years later the patient was found to have a deep thick red corrugated scar on the groin down the inner side of the left thigh nearly to the knee, also two small ones on the right front of the abdomen near the groin. The scars to the examining physician indicated tissue destruction through all the skin and into the muscle and fascia beneath and were scars of a third degree burn. The examining physician felt that the scar tissue was due to the trophic disturbance of nerves which nourish the skin and which were damaged by the encephalitis or the injury was due to a combination of abnormally sensitive skin caused by the encephalitis, or the injury was due to a combination acting in an abnormal manner on the abnormal tissue.

When the case was about to be reached for trial the plaintiff's attorney not being successful in procuring a settlement, consented to the discontinuance of the action and the action was thereby terminated in favor of the defendant.

medicines except that specifically prescribed. The patient was further instructed not to eat heavily while under treatment and to keep the bowels regular and also instructed to immediately notify the defendant of any irritation, pain or other symptoms that might occur.

When the patient returned for treatment on August 2nd there was no evidence of an X-ray reaction and no complaint of any kind was made by the plaintiff. After the treatment of August 2nd the next call she made on the defendant was August 26th, at which time there was a slight erythema over the lateral portal of the right thigh. She returned again on September 6th and September 26th at which times light treatment was administered over the slightly reddened area. Thereafter the patient was not again seen by the defendant and this action of alleged malpractice was instituted against him in September, 1923.

During the times that the plaintiff was receiving X-ray therapy from the defendant and after this treatment had been completed, she was under the care of her family physician. During the trial when called as a witness for the plaintiff, this physician testified that two days after the first treatment he called upon the plaintiff at her home, found her in bed with a reddened mass on the front of the thigh and a way clear of the phlebitis, that he could see that this was an X-ray burn and it did not involve the old condition, that he ordered her to remain in bed and began treating her by putting on dressings, that the condition became worse, the burn spread until it was about 4x6 inches and sloughed down to the bone, that he has been treating her since that time, a period of over three years, that about a year after the claimed X-ray burn this physician had a quartz lamp set up in the patient's home and gave her daily treatments from this lamp.

Between the latter part of December, 1922, and the middle of March, 1923, the plaintiff became a bed patient at a hospital. At the time she entered the hospital the plaintiff gave a history of having been treated with X-ray to both thighs on July 28, 1922, and one treatment a week later, lasting about two hours and a half, over the lateral aspect of her right thigh, and about three days after this last treatment she claimed that blisters appeared all over behind and on the lower part of her back which would have included areas that were not treated by the X-ray. The plaintiff told them at the hospital that the blisters broke down and ulcerated and that the lump on her thigh was larger than before. She further stated that the physician had made a diagnosis of phlebitis, but gave no history of any injury or infection of the feet or leg to account for phlebitis. Examination at the hospital disclosed an area of ulceration about 7 centimeters square and a diagnosis was made of

X-ray burn indolent and the patient admitted for excision of the ulceration. Examination at the hospital a few days after admission disclosed on the external aspect of the right thigh a raw scar about 10 centimeters and almost square in shape, in the center of which was a superficial ulcer about 4x5 centimeters with grayish indolent base edges. On the following day under a local anaesthesia the ulcer and skin for an area of 1½ centimeters surrounding the ulcer were excised and the wound left wide open. While at the hospital the wound was irrigated and dressed almost daily. Granulations slowly formed along the borders of the wound and in the middle of February, 1923, examination disclosed that the base of the wound was still covered with a heavy slough and it was questionable whether or not the wound could be healed without removing the patient's leg.

By the end of February there was no progress in the appearance of the lesion within the last month. During all of the time the patient was suffering from quite severe pain. About two months after the plaintiff entered the hospital the surgeon, upon examination, found the base of the wound open and separated from the femur by a small margin of tissue. He found that the surface looked better than it did a month previous, which was especially true about the periphery, the pain however being nearly as severe as when the patient entered the hospital. From the time the patient entered the hospital her treatment had consisted of excision of the ulceration, applications of heat both moist and dry followed by escharotic pastes. This examining physician was of the opinion that local treatment should be persisted in, consisting of cleansing, dressings and stimulating applications to the surface for the next few months in an effort to obtain a surface to which skin can be grafted. He was of the further opinion that amputation of the leg at the hip would relieve the patient's pain, but the tissues all about were so affected that primary healing could not be hoped for, and that this procedure would end up in an open wound quite as large as the one then present. Amputation of the limb was not resorted to, the patient refusing to consent to such operation though her general condition remained good.

After the patient left the hospital the local treatment of the ulcerated area was continued at the patient's home. The hospital followed up the condition through its visiting nurses. When seen in April, 1925, by a visiting nurse the plaintiff was still receiving local treatment of dressing, light and ointments. The wound at that time was a little better but gave off a very offensive odor. The plaintiff was up and about and able to do her housework, but could not walk up or down stairs and the patient said she had not been out of the house for about three years.

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address the Essex County Medical Society which has only 24 members

Dr J B Croff suggested that the business part of a meeting be made short so as to give the speakers a fair show

He also suggested that other topics besides medicine be discussed—workmen's compensation for example, or the medical practice act. He also found a collation to be an incentive to attendance or to staying through a meeting

Dr Dougherty said that the New York County Society transacted its business through a large Comitia Minora, for experience had shown that the members would not stay through a business session—they preferred that the elected officers should attend to all the details of business affairs

Question 8 was, "What welfare organizations have you invited to send representatives to any of your meetings to explain their programs?" brought out a series of "noes" for answers. Dr McNerney of Onondaga County said that the members of Onondaga County come together solely for the scientific program

It seemed to be the opinion of several speakers that the members had heard so much about public health that they were surfeited with it

Dr Dougherty described the work of the New York County Society in promoting periodic health examinations

Dr Frank Overton said that the Suffolk County Medical Society dominated and led the county tuberculosis committee and that it always invited members of that and other welfare organizations to attend the meetings

Dr J F Schiff said that the Clinton County Medical Society had invited the public health nurses to take part in the program of one meeting, but that the experiment would not be repeated, for it led to misunderstandings and disputes. He said that a better plan would be to let a committee of the society deal with the welfare workers, and that the committee should make reports to the society with recommendations. He said that in counties where this was done, co-

operation of the medical and lay organizations was secured

Regarding the function of the Comitia Minora—question 9—Dr J M Mabbott suggested that one function might well be to guide the elections so that competent officers were chosen

Reference was made to question 10 by Dr Henry L K Shaw, Chairman of the Committee on Legislation, when he said that medical legislation was by no means ended with the passage of the Practice of Medicine Act. Medical topics would have an increasingly important place in legislation, and the subject of industrial medicine will probably be brought prominently before the next legislature

Dr George M Fisher, President of the Medical Society of the State of New York, closed the discussion with comments on some of the points which had been brought out

Regarding Post Graduate Education, he was surprised to hear that a rural society should prefer the subject of syphilis to pediatrics and obstetrics, but if a society wanted to study syphilis, the State Society should supply the teacher

Regarding welfare organizations, Dr Fisher suggested that if the leader of a welfare organization asked for advice, the doctors should give it to them, but should not turn the matter entirely over to them. A doctor should treat a case whether it was brought by a nurse or not. He commended the mental clinic of Utica, in which on one day eight cases were examined, all brought by doctors. This benefited the patients, the doctors, and the community

Dr Fisher urged the physicians to do preventive diphtheria work in the families which they have on their visiting lists. He also commended the social side of organizations of doctors

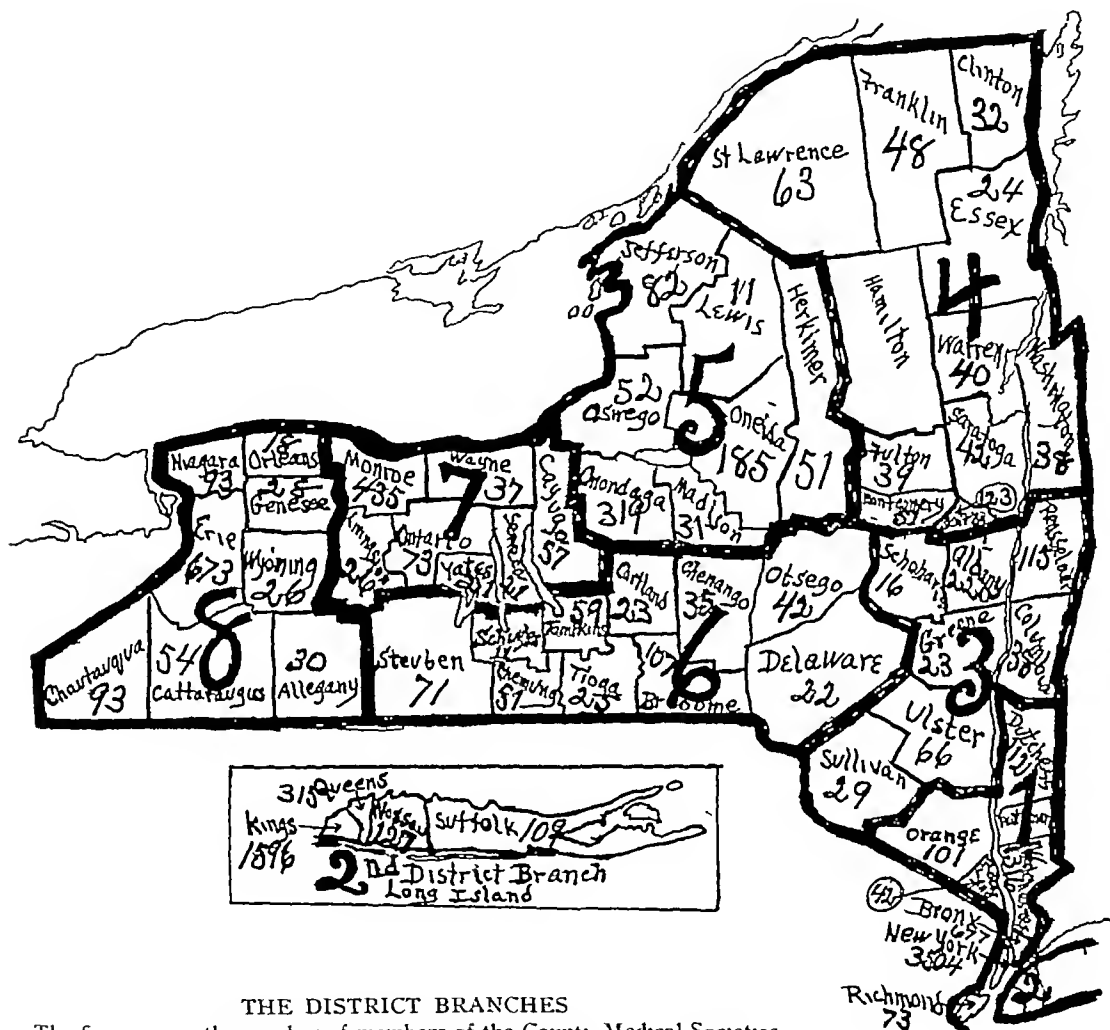
The unanimous impression of those attending the conference was that it was well worth holding. The discussions were brief, snappy, and to the point, and were given almost entirely by the secretaries. It was an experience meeting, and the opinions expressed will be of great value to the County Secretaries and to the officers of the State Society

DISTRICT BRANCH MEETINGS

The following dates and places for the meetings of the District Branches have been announced
 Tuesday, September 21, *Sixth*, in Owego
 Saturday, September 25, *Third*, in Albany
 Wednesday, September 29, *Seventh*, in Geneva

Friday, October 1, *Fourth*, in Plattsburg
 Thursday, October 14, *Fifth*, in Watertown
 Wednesday and Thursday, October 27 and 28, *Eighth*, in Buffalo
 Wednesday, November 10, *First*, in Briarcliff

daries of the districts, and the names of the officers. This information is supplied in this article and the accompanying map.



The figures give the number of members of the County Medical Societies

President—Charles P McCabe, M D, Greenville.
1st Vice-President—Edgar A Vander Veer
M D, Albany
2nd Vice-President—Herbert L Odell, M D,
Sharon Springs
Secretary—Clark G Rossman, M D, Hudson
Treasurer—Ernest E Billings, M D, Kingston

Fourth District Branch

President—Horace M Hicks, M D, Amsterdam
 1st Vice-President—Lyman G Barton, M D, Plattsburg
 2nd Vice-President—William L Munson, M D, Granville
 Secretary—Carl R Comstock, M D, Saratoga Springs
 Treasurer—Sidney F Blanchet, M D, Saranac Lake

Fifth District Branch

President—Charles D Post, M D, Syracuse
 1st Vice-President—Page E Thornhill, M D, Watertown
 2nd Vice-President—Augustus B Santry, M D, Little Falls
 Secretary—William J McNeerney, M D, Syracuse
 Treasurer—Frank E Fox, M D, Fulton

Sixth District Branch

President—Wilbur G Fish, M D, Ithaca
 1st Vice-President—LaRue Colgrove, M D, Elmira
 2nd Vice-President—George M Cady, M D, Owego

Secretary—Hubert B Marvin, M D, Binghamton
 Treasurer—Stuart B Blakely, M D, Binghamton

Seventh District Branch

President—Claude C Lytle, M D, Geneva
 1st Vice-President—G Kirby Collier, M D, Rochester
 2nd Vice-President—A W Armstrong, M D, Canandaigua
 Secretary—John A Lichty, M D, Clifton Springs
 Treasurer—Edward T Wentworth, M D, Rochester

Eighth District Branch

President—George W Cottis, M D, Jamestown
 1st Vice-President—Thomas J Walsh, M D, Buffalo
 2nd Vice-President—Francis E Fronczak, M D, Buffalo
 Secretary—W Warren Britt, M D, Tonawanda
 Assist Secretary—Russell H Wilcox, M D, Tonawanda
 Treasurer—Fitch H Van Orsdale, M D, Belmont

THE GRIEVANCE COMMITTEE

A meeting of the Grievance Committee that was appointed under the recent Medical Practice Act was held in Albany at the Department of Education on September 2, 1926, and was opened by Dr August S Downing, Deputy Commissioner of Education. All the members of the Committee were present, as follows

Frederick H Flaherty, M D, Syracuse
 Allan A Jones, M D, Rochester
 Moses Keschner, M D, New York
 Grant C Madill, M D, Ogdensburg
 William S Overton, M D, Binghamton
 Martin B Tinker, M D, Ithaca
 Roy Upham, M D, Brooklyn
 Arthur B Van Loon, M D, Albany
 Orrin Sage Wightman, M D, New York
 Ralph Williams, M D, Rochester

As the main purpose of coming together was organization, the first order of business was the election of a permanent Chairman and a Secretary. Dr Orrin Sage Wightman of New York was duly elected Chairman and Dr Frederick H Flaherty of Syracuse, Secretary.

The committee felt that the work of the committee could be best served by the appointment of a sub-committee so located in the State that they could readily come together and review

reference cases coming within their local areas. The findings of these sub-committees would automatically be referred to the whole committee, if the cases were not otherwise settled. To make this plan effective the following groups of sub-committees were approved and appointed.

A Western group formed of Dr A A Jones of Buffalo, Dr Ralph Williams of Rochester, and Dr M B Tinker of Ithaca.

A Mid-State group composed of Dr G C Madill of Ogdensburg, Dr F H Flaherty of Syracuse, and Dr W S Overton of Binghamton.

An East-Central group composed of Dr Van Loon of Albany, Dr F H Flaherty of Syracuse, and Dr W S Overton of Binghamton or Dr G C Madill of Ogdensburg.

A Southern group composed of Dr O S Wightman and Dr M Keschner of New York and Dr R. Upham of Brooklyn.

In the event of any man being unable to attend a sub-committee meeting, another man from an adjoining group would attend in his place.

Naturally the work of this Committee will be arduous, but the seriousness of the task and the desire of the whole group to prove worthy of the trust imposed will be an added spur toward putting an end to charlatanism in the State.

ANNUAL REGISTRATION BLANKS

The cards on which physicians are to make application for their first annual registration, under the revised Practice of Medicine Act, are ready for distribution, and will be sent to every physician before October 1. The application card for physicians is as follows:

MEDICINE

Name _____
Address _____ St _____ City or village _____

Applies for Annual Registration as a practitioner of Medicine and affirm under oath that the statements made in this application are true to the best of his knowledge and belief

Place and date of birth _____

Number and date of license _____

License originally recorded in _____ county in year _____

County in which you are now practising _____

M D

Sworn to before me this _____ day of _____ 1926

Notary Public for _____ county

This card with the fee of \$2 must be filled out and returned at once to The University of the State of New York at Albany

[OVER]

DEAR DOCTOR Chapter 834 of the Laws of 1926 requires every practising physician to register annually on or before the first of January of each year with the Board of Regents. Kindly fill out this application blank, have it certified by a notary and return it together with statutory fee of \$2 to the Finance Division of The University of the State of New York, Albany. Make checks payable to The University of the State of New York.

HAROLD RYPINS, M D, *Secretary*
State Board of Medical Examiners

The word license is explained by Dr. Harold Rypins, Secretary to the Board of Medical Examiners, to mean the authority on which the physician bases his right to practice medicine. It may be a license issued by a County Medical Society under the Act of 1806 (one or two doctors who secured their licenses in that way are still living), a diploma granted by a medical school previous to 1893, or a license granted by the University of the State of New York in 1893 or later.

The number of a license previous to 1893 may be difficult or impossible to obtain. If no number is recorded on the license, of course none can be given on the application card. But the licenses issued since 1893 bear numbers.

The final act by which a physician secured the right to practice medicine was that of registration in some county of New York State. The record of that registration is written or stamped on the doctor's diploma. The first registration was made in many instances in the County of New York or Kings, while the doctors were hospital internes. It is the *first* registration that is called for by the card. Subsequent registrations by the clerks of other counties are simply indorsements of the first one.

According to Dr. Rypins, "These applications must be in not later than January 1, but the Department would greatly appreciate the co-operation of the profession in order that the first certified list of duly licensed and registered physicians may be printed and distributed early in January. This list of registered physicians will be mailed to every physician who has registered. The compilation of an accurate list of duly qualified practitioners is a tremendous task and the Department of Education bespeaks the sympathetic cooperation of the medical profession in facilitating this important work."

The Civil Service Commission has completed a list of medical inspectors who will be appointed and who will go on duty some time in September. The Board of Medical Examiners is ready to receive information regarding illegal acts of the practice of medicine, especially the display of signs bearing the word doctor.

The Attorney General has assigned Deputy Attorney Generals George W. Davis and William B. Groat to conduct all prosecutions under the Practice of Medicine Act.

The Chiropractic-Naturopathic Association attempted to bring an injunction against the State officials restraining them from carrying out the provisions of the Act. The suit was brought before a Federal Court, for it involved the State of New York, but Judge Mack denounced the application on the ground of lack of jurisdiction.

All necessary preparations have now been made for putting the Practice of Medicine Act into operation. The indications are that physicians will do their part promptly.



THE DAILY PRESS



EXTRA-TERRITORIALITY

Those who uphold the insistence of Europeans on maintaining their own government and courts in foreign lands will find its justification on hygienic grounds in an editorial from the *New York Herald-Tribune* of August 13th describing conditions in Shanghai, where a thousand Chinese are dying daily of cholera in the old city, and none in the new. The editorial says:

"To understand the significance of these figures and their bearing upon the question of foreign concessions in China it is necessary to recall the origin of the Shanghai 'settlement.' There was a huge Chinese city on the Woosung long before the foreigner came. When, in 1843, the port was opened to foreign trade, the foreigners found its population living under conditions which would have meant early death for Europeans. They asked for an allotment of land where they could build houses and streets after their own kind, and the Chinese assigned the swamplands along the river bank below the city. The worth-

less marsh was considered quite good enough for the foreigner.

"The foreigners accepted the land assigned, and upon it during the succeeding fourscore years they have built a magnificent modern city, whose broad avenues and towering buildings quite overshadow the old Chinese metropolis. The Chinese themselves have not been slow to seek the advantages of the foreign settlement, and they have moved into it by thousands, so that to-day about 90 per cent of its inhabitants are Chinese.

"During all of these years, despite the influx of Chinese, the foreigners have kept the municipal administration in their own hands. Sanitation, roads and streets and police protection have been rigorously kept up to foreign standards. It is only necessary to look at the surrounding towns, at the native city of Shanghai itself, and the conditions which prevail there under Chinese administration, to see why the foreigners living in the settlement insist upon retaining their control."

THE RIGHT TO BE A FOOL

The current notion of American independence is that each individual has the right to take chances with health and safety, to burn up his own property if he wishes, and even to commit suicide. The ground of this reasoning is that each person's property, life or health is his own, to do with it as he pleases. This is the reasoning of the solitary cave man, and does not apply to modern life with its wide ramifications and complications. There is one class of persons whom modern recklessness and license affect seriously, and that is the group of physicians. On them falls the burden of life saving and body mending. The same persons that claim a right to be reckless with health and life, also demand the services of doctors when they are injured. Take, for example, the matter of relief after automobile accidents. Reckless drivers take chances with safety the more readily because they carry accident insurance, and when they are injured, they demand the best medical services from physicians and hospitals, and then when they are healed, they dismiss the matter of pay with the remark "The insurance company will pay the bill." But will the insurance company settle? It will not, for it takes the ground that the accident was due to the autoist's own carelessness, and the doctor and hospital are out of pocket. So notorious has

this condition become that many doctors go to great lengths to avoid treating the victims of automobile accidents.

But not all automobile drivers are careless,—in fact most drivers are careful. On the other hand not all pedestrians who cross the streets are careful,—in fact many are foolishly careless. They act as if they owned the road, as they complacently saunter in front of the oncoming auto, that has the right of way.

It is rarely that a pedestrian is arrested in this country for being injured by an automobile, but such a thing happens in France. The *New York Herald-Tribune* of September 7th has an editorial on "The right to be a cussed fool," which says:

"America, or at least that portion of it which lies between the Hudson and the Delaware, is obviously disinclined to concede that 'they order this matter better in France.' For a long time, indeed, the latter country has enjoyed a unique distinction in dealing with highway accidents, in arresting and punishing the pedestrian who is run down, instead of the driver of the vehicle that runs him down. We should hesitate to compute how many volumes of witticisms and bantering comments have been based upon that anomalous

practice, in which France has commonly been esteemed to be unapproachable

"Suppose that in the exercise of that inalienable right the life, liberty and pursuit of happiness of others are involved? Has the pedestrian a right to get run over and thus cause an uncomfortable jolt to the vehicle that passes over him, to say nothing of the interruption and delay of traffic while his more or less bruised and mangled person is being removed from the highway to the hospital? And has even the smartest of Smart Alecks a right to exploit his foolishness by going out through an obviously dangerous surf and then howling for help and putting others to the labor and peril of going to his relief?"

"It is a complicated problem, at the solution of which we would no trashily leap. There is at every turn a fresh envisioning of Charles Reade's apophthegm, 'There is nothing so inscrutable as a fool'."

The editor then cites a unique example of New Jersey justice which has considerable reputation for promptness and justice

"New Jersey proceeds to demonstrate herself at least nip and tuck with France. One of her municipal magistrates on seeing a swimmer rescued by a lifeguard and safely brought from out the boisterous surf, promptly places the swimmer under arrest as an offender against the peace and dignity of the commonwealth for the atrocious crime of getting nearly drowned."

A news item in another part of the *Tribune* says that after being given a reprimand the defendant was discharged because, although he had violated the dictum of common sense, no New Jersey law seemed to have been broken

A doctor is interested in these cases, for to him comes both the urgent call for first aid and the laggard pay check for his services

WHY QUACKS FLOURISH

Dr Cadman, in his *Daily Counsel* column of the *New York Herald-Tribune* of August 25, undertakes to answer the question "Why is it that, with all our boasted smartness as a nation, quacks of every kind thrive in the United States?" Dr Cadman replies "First, because many Americans are insatiably curious—interrogation points incarnate. Nor could we be a highly inventive people without assuming the risks of questioning and experimentation. Whatever has bite in it or adventure or aggression, with a dash of danger or of mystery, is attractive to our people. In the phrase of the street, they will 'try anything once'."

'Second, because in the American character, which is not yet sufficiently unified to be described, there is a standing conflict between sentimental idealism and ruthless realism. Its peculiar blend of simplicity and shrewdness is its charm and its peril.

'Business men and intelligent women who insist on accuracy and hardheaded judgment for the material side of life will often commit the

care of their physical and mental health to unqualified cranks or fakes. They are willing to be gulled so long as the process is pleasurable.

"In the third place, if Americans are anything they are optimistic. That which feeds hope is welcome, because hope is far easier to practice than the fortitude which faces facts. Moreover, in our land, thick with opportunities, the flattering tales which hope tells are occasionally vindicated. So many who are critical to a fault in other affairs patronize the quack because they or their loved ones are desperately ill, or else they are deeply in love, or, again, crave power in social life or success in business.

"Last, the fool is always abroad in the land. The moronic mind is the quack's green pasture."

Dr Cadman has been a consistent upholder of the practice of scientific medicine and his writings doubtless contributed materially to the creation of public sentiment which resulted in the passage of the Practice of Medicine Act last spring

ADVERTISING ELECTRONIC HEALING

The exponents of the electronic vibration theory of therapeutics have announced that their theory applies to seeds as well as to human beings. A news item in the *New York Herald-Tribune* of September 7 says

"Having succeeded in measuring the vitality of hundreds of unsprouted bean seeds by means of a delicate vibratory machine, members of the American Electronic Research Association are

making tests of other plant life in the laboratories of the McManis College of Electronic Medicine at Kirksville, Mo. Experiments now are being conducted with wheat, corn and oats."

This propaganda is evidently intended to catch the patronage of farmers. It may also be a bid for the farm journals to accept the advertisements of the electronic healers.



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SUBDELTOID BURSTITIS

By MORRIS B COOPERMAN, M D, PHILADELPHIA, PA

SUBDELTOID bursitis, by and large, is unquestionably the most frequent cause of the painful shoulder and should always be thought of first in the diagnosis of that complaint.

There are two diseases with which it is most frequently confused, namely, brachial neuritis and rheumatism. In brachial neuritis, motor, sensory and trophic symptoms appear early and are quite pronounced. In subdeltoid bursitis, the symptoms of nerve implication appear late. Deltoid atrophy, sensory and motor signs, in the hand and fingers, are usually seen late in the subacute or chronic stage of this affection. In brachial neuritis, there is an absence of the cardinal symptoms of subdeltoid bursitis, namely, swelling of the bursa, limitation of abduction and rotation of the shoulder and points of tenderness over the tuberosities. Finally the X-ray evidence of calcified deposits is conclusive that the condition is one referable to the shoulder, rather than to an inflammatory process in the nerve supply of the shoulder.

Rheumatism is a diagnosis which appears to satisfy the conscience of many physicians and is conclusive to the patient. As a matter of fact, there are very few unilateral joint infections, if any, which are really rheumatic in nature. In the absence of symptoms in other joints in the body, it would appear unreasonable to consider rheumatism and in this connection, I might say, that it is a term that is being used less frequently by well informed physicians.

Etiology—The subdeltoid bursa, because of its exposed position, is peculiarly liable to injury and inflammation. Located between the acromion process above and the greater tuberosity beneath and covered by the powerful deltoid muscle, this bursal sac is subjected to compression when the arm is abducted. This applies to the subjacent structures as well, for immediately beneath the floor of the bursal sac are the infra and supra spinati tendons, inserted into the greater tuberosity of the humerus. These also suffer

to a considerable extent. Very frequently, at operations, lacerations have been observed in these tendons, undoubtedly of traumatic origin.

Those who are engaged in certain occupations where the arm is raised above the head a great deal, in certain sports, such as baseball, tennis, etc., or even certain positions while lying in bed, or those who might receive direct blows upon the shoulder or those who might fall upon the outstretched hand, all these will produce compression and contusion of this bursal sac and underlying tendons between these two bony prominences. I have also noticed that two or three weeks after recovery from a wrist fracture, which had been sustained by a fall upon the outstretched hand, there were undoubted evidences of subdeltoid bursitis.

Exposure to wet and cold is also one of the causes of this disease which I have observed, particularly in the case of women who wear such thin clothing.

The relation between focal infection and subdeltoid bursitis has not been established. Bacteriologic examinations of the tissues, removed at operation, fail to reveal any organism. Brickner, in over two hundred cases, failed to note any coexistent infection, tonsillar or otherwise. These cases never suppurate. The deposit, frequently seen beneath the bursal floor, if it be in the liquid state, looks like pus. On its examination, no pus however is found, but fat cells, lime salts and debris.

From a therapeutic standpoint, these findings point to the futility of expecting cures by eradicating suspicious foci of infection.

In my experience, I have frequently advised removal of infected tonsils and teeth, but in most cases, their removal failed to influence the symptomatology.

Some authorities believe that in many of these patients there appears to be a metabolic predisposition to a deposit of lime salts in this region, but what this metabolic fault is, is left to conjecture and speculation. I have



BOOK REVIEWS



DISEASES OF THE NEW-BORN A Monographic Handbook. By JOHN A. FOOTE, M.D. Octavo of 231 pages with illustrations Philadelphia and London, J. B. Lippincott Company, 1926 Cloth, \$5.00

The reviewer's first reaction on picking up this book was that it was unnecessary inasmuch as the subject was adequately covered in the books on the management and treatment of children in general. This may be true, but at least we have read the book with enjoyment. It is well written and it is convenient to have this particular part of childhood treated by itself.

The chapter on therapeutic technique particularly is very convenient and helpful, the reviewer agrees with the space and emphasis devoted to hemorrhage. The book can be safely recommended. W. D. L.

PUBLIC HEALTH LAW A Manual of Law for Sanitarians. By JAMES A. TOBEY, M.S., LL.B. Octavo of 304 pages. Baltimore. Williams and Wilkins Company, 1926 Cloth, \$4.50

The author has presented to those interested in health administration information on the legal aspects of public health which will be found of great value and interest. Health officers will find Mr. Tobey's work of immense value, although, as he states, he does not offer it to take the place of an attorney. E. H. M.

HANDBOOK OF DISEASES OF THE RECTUM By LOUIS J. HIRSCHMAN, M.D., F.A.C.S. Fourth Edition revised and rewritten. Octavo of 403 pages, with illustrations. St. Louis, C. V. Mosby Company, 1926 Cloth, \$6.50

The author states in his preface that the object of this book is to simplify the diagnosis and treatment of many of the more common diseases of the rectum and anus. This has been accomplished in a way that leaves little to be desired. In a simple, practical and yet thorough way the author has discussed all of the usual and more important diseases of this region.

This last edition is slightly larger than the previous one. There are 252 illustrations and 5 beautiful colored plates. Some of the illustrations are new while others were used in the earlier editions.

A symptom index of great value has been introduced. The chapter on Local and Sacral Anaesthesia is new and has been placed near the front of the volume which well illustrates the importance that this method of anesthesia has in all anal and rectal operations.

One sentence must be quoted in toto "Physicians no longer study to discover the type of disease a patient has but rather try to find out what kind of a patient the disease has."

This edition shows the improvement that conscientious work can make in an already good book.

HENRY F. GRAHAM

PURPERAL SEPTICAEMIA Its Causations, Symptoms, Prevention and Treatment. Being the Substance of a Thesis Submitted to the Royal Society of Medicine in June, 1924 and awarded the Nicholls Prize. By GEORGE GEDDES, M.D., CM. (Aber). Octavo of 200 pages. New York. William Wood and Company. 1925. Cloth, \$4.00

This English essay is a most carefully detailed and searching study into the incidence of puerperal fever. Geddes' statistics prove that septicaemia is more common in medical practice than in the cases handled by midwives. With this as a basis he shows that industrial accidents determine the puerperal fever rate in every dis-

trict studied. In other words, medical practitioners, dressing the infected wounds of industry, carry the infection to the woman in labor. His conclusions seem reasonable and should apply to puerperal sepsis everywhere.

His treatment is most radical, consisting in general of a careful search of the true cause for evidence of trauma or infection with the direct application of antiseptics and active surgical removal of infected tissue by curettage.

Decidedly taking issue with our usual modern practice of watchful conservatism, the book is very stimulating. C. A. G.

CAESAREAN SECTION With a Table of 120 Cases. By HERBERT R. SPENCER, M.D., B.S., F.R.C.P. Octavo of 71 pages. New York, William Wood and Company, 1925. Cloth, \$2.75

This little volume of 70 pages is a complete record of all the author's Caesarean sections (120) with a critical analysis of the well known debatable points involved. He condemns catgut sutures and considers the use of specially prepared silk of great importance in the prevention of secondary rupture of the uterine scar. He sees no reason for the present popularity of the low cervical section, and strongly condemns sterilization during the course of Caesarean section as an absolutely and always unjustifiable procedure. A very frank contribution to the subject, it will be read with great interest by American obstetricians. C. A. G.

LACTOBACILLUS ACIDOPHILUS By NICHOLAS KOPELOFF. Ph.D. Octavo of 211 pages. Baltimore, Williams and Wilkins Company, 1926. Cloth, \$5.00

This volume of 200 pages outlines the history, progress, and clinical interpretation of the use and preparation of the *Lactobacillus acidophilus*. The volume is full of interest and affords a clear interpretation as to the manner of preparation and use of this important therapeutic agent. H. M. F.

BERGEY'S MANUAL OF DETERMINATIVE BACTERIOLOGY A Key for the Identification of Organisms of the Class Schizomycetes. By DAVID H. BERGEY. Second Edition. Octavo of 462 pages. Baltimore, Williams and Wilkins Company, 1925. Cloth, \$5.50

This is the second edition of the standard classification of bacteria with the assistance of a committee of the Society of American Bacteriologists.

It is a scientific, biological classification of orders, families, tribes, etc., up to date, and with a rearrangement of keys to make tracing of known species easy. It should be included in the library of every bacteriologist and laboratory. I. COHN

NOUVEAU TRAITÉ DE MÉDECINE. Published under the Direction of G. H. ROGER, FERNAND WIDAL and P. J. TEISSIER. Fascicule XIX. Pathologie du Cerveau et du Cervelet. Octavo of 1016 pages, with illustrations. Paris, Masson et Cie, 1925. Boards 75 francs

This is indeed a splendid volume. It is a reliable monograph that includes the recent advances in our knowledge of the diseases of the cerebrum and cerebellum. There is also a section on labyrinthine syndromes. The illustrations are profuse and well chosen. The motion picture representations of gait and other motor disturbances are particularly instructive. The only fault to be found with this book is the absence of an index, a common defect with our contributions from France. FREDERIC DAMRAU

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SUBDELTOID BURSTITIS

By MORRIS B COOPERMAN, M D, PHILADELPHIA, PA.

SUBDELTOID bursitis, by and large, is unquestionably the most frequent cause of the painful shoulder and should always be thought of first in the diagnosis of that complaint.

There are two diseases with which it is most frequently confused, namely, brachial neuritis and rheumatism. In brachial neuritis, motor, sensory and trophic symptoms appear early and are quite pronounced. In subdeltoid bursitis, the symptoms of nerve implication appear late. Deltoid atrophy, sensory and motor signs, in the hand and fingers, are usually seen late in the subacute or chronic stage of this affection. In brachial neuritis, there is an absence of the cardinal symptoms of subdeltoid bursitis, namely, swelling of the bursa, limitation of abduction and rotation of the shoulder and points of tenderness over the tuberosities. Finally the X-ray evidence of calcified deposits is conclusive that the condition is one referable to the shoulder, rather than to an inflammatory process in the nerve supply of the shoulder.

Rheumatism is a diagnosis which appears to satisfy the conscience of many physicians and is conclusive to the patient. As a matter of fact, there are very few unilateral joint infections, if any, which are really rheumatic in nature. In the absence of symptoms in other joints in the body, it would appear unreasonable to consider rheumatism and in this connection, I might say, that it is a term that is being used less frequently by well informed physicians.

Etiology—The subdeltoid bursa, because of its exposed position, is peculiarly liable to injury and inflammation. Located between the acromion process above and the greater tuberosity beneath and covered by the powerful deltoid muscle, this bursal sac is subjected to compression when the arm is abducted. This applies to the subjacent structures as well, for immediately beneath the floor of the bursal sac are the infra and supra spinati tendons, inserted into the greater tuberosity of the humerus. These also suffer

to a considerable extent. Very frequently, at operations, lacerations have been observed in these tendons, undoubtedly of traumatic origin.

Those who are engaged in certain occupations where the arm is raised above the head a great deal, in certain sports, such as baseball, tennis, etc., or even certain positions while lying in bed, or those who might receive direct blows upon the shoulder or those who might fall upon the outstretched hand, all these will produce compression and contusion of this bursal sac and underlying tendons between these two bony prominences. I have also noticed that two or three weeks after recovery from a wrist fracture, which had been sustained by a fall upon the outstretched hand, there were undoubted evidences of subdeltoid bursitis.

Exposure to wet and cold is also one of the causes of this disease which I have observed, particularly in the case of women who wear such thin clothing.

The relation between focal infection and subdeltoid bursitis has not been established. Bacteriologic examinations of the tissues, removed at operation, fail to reveal any organism. Brickner, in over two hundred cases, failed to note any coexistent infection, tonsillar or otherwise. These cases never suppurate. The deposit, frequently seen beneath the bursal floor, if it be in the liquid state, looks like pus. On its examination, no pus however is found, but fat cells, lime salts and debris.

From a therapeutic standpoint, these findings point to the futility of expecting cures by eradicating suspicious foci of infection.

In my experience, I have frequently advised removal of infected tonsils and teeth, but in most cases, their removal failed to influence the symptomatology.

Some authorities believe that in many of these patients there appears to be a metabolic predisposition to a deposit of lime salts in this region, but what this metabolic fault is, is left to conjecture and speculation. I have

observed this disease most frequently in adults between the ages of 35 and 60

Symptoms—The cardinal symptoms of acute subdeltoid bursitis are pain in the shoulder,

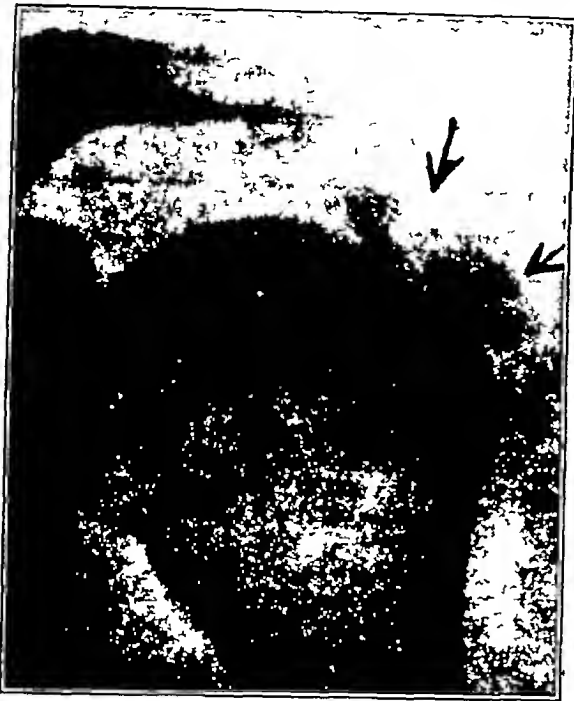


FIG 1—Case 4 Shows a large calcific deposit capping the greater tuberosity of the humerus. At the time this X-ray was taken, the subdeltoid bursa was moderately distended. This was a case of exudative subdeltoid bursitis with a sub-bursal deposit, three weeks duration

swelling and fluctuation of the subdeltoid bursa, limited motion due to muscle spasm, sublaxations and tenderness over the lesser tuberosity of the humerus

Pain—The pain is very intense, spasmodic in character, aggravated by motion and pressure and usually is worse at night. It frequently radiates down to the outer and middle third of the humerus. Very frequently, the pain will radiate down to the hand and fingers and simulate a true neuritis. This is due to the implication of the articular branches of the circumflex nerve supplying the subdeltoid bursa in an associated inflammatory process. The involvement of this nerve prolongs the pain and disability in the great majority of cases

Limited Motion—Abduction and rotation are greatly restricted. The patient may be able to abduct the arm from the chest wall a few degrees, beyond which point an intense muscle spasm exists which prevents further abduction. As the inflammation subsides an increasing degree of abduction can be obtained. Forward flexion and extension is fairly free, even in the acute stage, the patient is able to swing the

arm forward and backward freely. As the condition becomes chronic and is untreated, a contracture of the humero-scapular and costo-humeral takes place. In these instances the arm is bound down tightly against the chest wall and the motion that is present, is due largely to scapular rotation. Stiffness or limited motion is most persistent and may last for weeks, months or even years. In some cases, restriction in joint range is so marked, that it resembles an ankylosis. If it were not for the X-ray, we might be tempted to consider it such, the picture in the cases of which we are writing, showing normal cartilage

Swelling—The subdeltoid bursa is distended, raising the entire deltoid muscle from the capsule of the joint and increasing the size and roundness of the shoulder to a marked degree. From a differential diagnostic standpoint, if it were fluid within the joint, the deltoid region would not bulge, because the strong reinforcing coraco-humeral band of the capsule does not yield. An increased amount of fluid in the shoulder joint causes the capsule to bulge posteriorly, or in the bicipital sheath, fluctuation being most readily demonstrated behind or below the spine of the scapula or over the biceps. In the latter, it resembles a sausage shape tumor over the outer side of the upper arm



FIG 2—Case 4—Six-weeks later. Note that the deposit is now about the size of a split pea. This patient received 17 diathermic treatments and wore an aviation splint for six weeks. Normal function was restored in two months after treatment was started

Subluxations—In a comparatively few instances, I have observed slight downward or subglenoid subluxations of the shoulder when a large effusion is present. This may be



FIG 3—Case 3 Shows a large calcific deposit practically filling the space between the acromion process and the humeral head and greater tuberosity. Shoulder disability of five months duration.

demonstrated by noting the apparent increase in the length of the upper extremity as it hangs in a dependent position. The space between the acromion and greater tuberosity is increased. I believe these subluxations are caused by the hydro-static pressure of the distended bursal sac upon the greater tuberosity of the humerus. These findings are always confirmed by the X-ray. One of the cases recently seen and submitted herein illustrates this point.

It must be borne in mind that the shoulder maintains its position mainly through muscular action. The ligaments are loose structures and do not, per se, offer sufficient tension to approximate the head of the humerus to the glenoid cavity. For this reason the shoulder joint is the most frequently dislocated. Subluxations, due to sub-deltoid bursitis, spontaneously recover when the effusion subsides.

Grating—I have heard a distinct grating sound when the humerus rotates underneath the acromion. This may be due to the presence of the calcific deposits which lie between these bones.

Atrophy—Deltoid atrophy is a conspicuous symptom in the chronic case. The normal rounded appearance of the shoulder is changed

now to a flattened contour. I believe these atrophic changes are due to two causes. First, lack of use, second, to degenerative changes in the circumflex or axillary nerve, which is implicated to a considerable extent in an inflammatory process.

X-Ray Examination—In a fairly large percentage of cases, dense shadows are observed in the space between the acromion process and the greater tuberosity of the humerus. These may be single or multiple, large or small and may be in intimate relation with the greater tuberosity. In the past, before we knew very much about this disease, these were thought to be fragments of bone from the tuberosity of the humerus, but we know now that they have no relation with this process. These deposits are never found in the bursal sac, but in the tendons or the bursal walls. The deposits may be semi-solid resembling tooth paste in color and consistency or they may be dry, gritty and dark brown in color. Very frequently, calcific deposits may be discovered by an X-ray examination taken for other reasons, when the patient was not cognizant of trouble in the shoulder. There might have been a history of traumatism which was so slight that the patient paid no attention to it. This emphasizes the point that the deposits of themselves may not be the cause of the painful symptoms of this disease, but it is the effusion



FIG. 4—Case 3 Two months later treated by diathermia alone. Note that only a small fragment remains. This patient obtained complete relief of pain and excellent shoulder function.

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Limited Motion—Abduction and rotation are greatly restricted. The patient may be able to abduct the arm from the chest wall a few degrees, beyond which point an intense muscle spasm exists which prevents further abduction. As the inflammation subsides an increasing degree of abduction can be obtained. Forward flexion and extension is fairly free, even in the acute stage, the patient is able to swing the

arm forward and backward freely. As the condition becomes chronic and is untreated, a contracture of the humero-scapular and costo-humeral takes place. In these instances the arm is bound down tightly against the chest wall and the motion that is present, is due largely to scapular rotation. Stiffness or limited motion is most persistent and may last for weeks, months or even years. In some cases, restriction in joint range is so marked, that it resembles an ankylosis. If it were not for the X-ray, we might be tempted to consider it such, the picture in the cases of which we are writing, showing normal cartilage.

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FIG 2—Case 4—Six weeks later. Note that the deposit is now about the size of a split pea. This patient received 17 diathermic treatments and wore an aviation splint for six weeks. Normal function was restored in two months after treatment was started.

Diagnosis—The diagnosis rests upon the history of the onset and development, the location and radiation of the pain, the tests of shoulder mobility, the pathognomonic point of tenderness to pressure over the lesser tuberosity of the humerus and finally, the X-ray evidences of calcific deposits

Treatment—In a practical consideration of

branches of the axillary nerve supplies
Acute Subdeltoid Bursitis—The prime indication is to relieve the increased intra bursal tension and to relax the spinati tendons by putting the shoulder at rest in the abducted position, either in bed or by splints, for a period of a week, or ten days, depending upon the intensity of the symptoms When a large effu-

TABLE ILLUSTRATING CASES

Name	Age and Sex	Cause	Duration of Symptoms Shoulder involved			Treatment		Remarks
1 J D	49 M	Struck by bale	6 weeks	R shoulder	Acute exudative bursitis Sub-bursal deposits	Open operation	Removal of deposit	Complete recovery Resumed work in 1 mo
2 J S	42 M	Unknown	5 weeks	R shoulder	Acute exudative bursitis.	Incision and drainage of bursa.	Abduction cast.	Complete recovery Resumed work in 1 mo
3 F F	57 F	Unknown	5 mos	L shoulder	Subacute adhesive bursitis Sub-bursal lime deposits	Diathermia.	Begun 3-6-25 Ended 5-15-25	No treatments 75 Excellent functional results Deposits absorbed
4 D R.	42 F	Unknown	3 weeks	L shoulder	Acute exudative bursitis with lime deposits.	Splint, abduction, salicylates, diathermia.	5-30 to 8-4-25	No treatments 17 Function excellent. Deposit absorbed
5 R. K.	46 F	Exposure to wet and cold 10-28-25	10 days	L shoulder	Acute exudative bursitis with sub-bursal calcific deposits	Axillary cushion bandage.	Velpeau Diathermia. 11-6 to 12-7-25	No treatments 14 Pain relieved. Excellent function Deposit absorbed.
6 E. L.	57 F	Injured shoulder scrubbing	5 weeks	L shoulder	Acute exudative bursitis with sub-bursal calcific deposits	Diathermia.	9-24 to 10-16-25	No treatments 9 Function restored Deposit absorbed.
7 B G	40 M	Lifted box over head	2 weeks	R shoulder	Acute exudative bursitis Calcific tenosynovitis. (2 yr. duration.)	Diathermia.	8-20 to 10-8-25	No treatments 12 Pain relieved. Function excellent. Deposit absorbed
8 F L.	53 F	Unknown	6 mos	R shoulder	Subacute adhesive. Subdeltoid bursitis	Diathermia.	1-3 to 3-3-26	No treatments 45 Calcific deposit absorbed Pain and stiffness persists Operation refused.
9 M G	35 F	Fall 5 mos. previously	1 week	R shoulder	Acute exudative bursitis Sub-bursal deposit.	Axillary cushion and bandage.	Diathermia began 2-26-26 to March 31st, 26.	No treatments 30 Function excellent Deposit absorbed.
10 S S	41 M	Lifting	10 days	R shoulder	Acute exudative bursitis with effusion L shoulder calcific tenosynovitis, non-symptomatic.	Axillary cushion, bandage, salicylates.	Diathermia. 2-26 to 2-16-26.	No treatments 20 Bursal exudate absorbed Small fragment visible on X-ray Pain slight and slight limitation of motion.
11 B P	45 F	Unknown	6 mos	R shoulder	Chronic periarthritis of shoulder	Forcible manipulations	Abduction splint. Diathermia	Function completely restored. Pain in damp weather
12 E. U	50 F	Lying on shoulder	3 mos.	R shoulder	Acute exudative bursitis Subluxation Ancient sub-bursal calcific deposits	Diathermia.	12-22-25 to 2-6-26	No treatments 42. Effusion and deposit absorbed Dislocation reduced Pain and stiffness persists Operation refused

the therapy of subdeltoid bursitis, it would seem best to divide it, first, into the treatment of the primary attack or acute exacerbation of an ancient calcific subdeltoid bursitis, second the treatment of the chronic stage of the disease, characterized by increasing stiffness and pain in the shoulder, due to lime deposits, adhesions and implication of the articular

sion can be demonstrated, aspiration, under strict aseptic precautions is a measure of great value, relieving the painful symptoms of the disease expeditiously Sodium salicylate combined with sodium bicarb grains XX every two hours can be administered per os, during the acute stage, being remarkably analgesic in its effect This combination may be

within the bursa or adhesions which form between the walls which cause the disability I might state that these deposits are potential factors of harm, because, being foreign bodies,

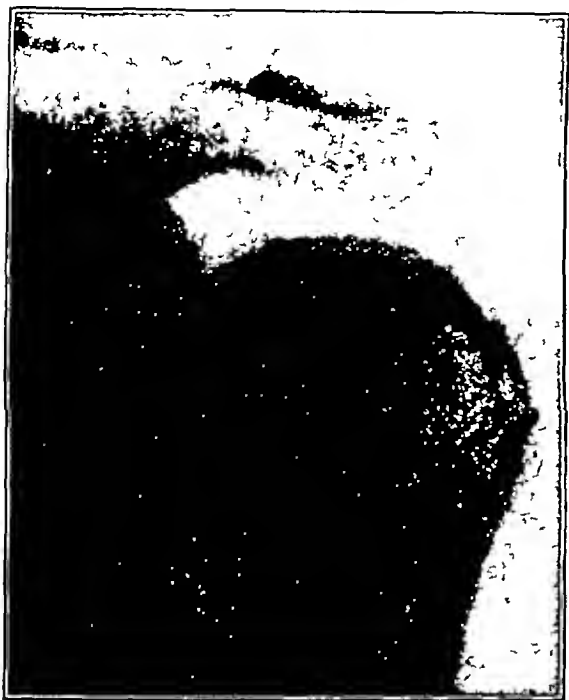


FIG 5—Case 5 Shows a calcific deposit in relation with the greater tuberosity. Duration of disability, ten days. The bursal sac was distended, muscle spasm and pain intense.

the least strain or minor injury may initiate an exacerbation in the bursal sac.

General Symptoms—As a general rule, these patients do not have any temperature elevations or increase in pulse rate. Because of the intense and intractable pain, they are highly neurotic, their morale is undermined from the worry and sleepless nights. They are irritable, lose weight, become anemic and exhausted, in fact, present every evidence of pain and suffering.

PATHOLOGIC TYPES

(1) *Acute Exudative Subdeltoid Bursitis*

The essential lesion in this variety is an acute exudative inflammation of the subdeltoid and subacromial bursae. The bursal sacs are distended with a serous fluid, the increased tension giving rise to the symptoms indicated above. Calcific deposits, beneath the bursal floor, recent or ancient, are frequently associated findings. Spontaneous absorption of the exudate and of the calcific deposit may occur.

(2) *Subacute Adhesive Subdeltoid Bursitis*

Usually the secondary stage of an exudative bursitis. Progressive loss of function, persist-

ent pain, muscular atrophy and neuritis of the circumflex nerve are the leading symptoms. The synovial membrane is thickened and agglutinated by adhesions. Loculated collections of serum are frequently noted. Beneath the bursal floor, the findings are, calcareous, degeneration of the tendons and tendon sheaths of the infra and supra spinatus muscles, granulation tissue infiltrated with lime salts, cortical erosions of the greater tuberosity of the humerus may also be occasionally observed. Spontaneous recovery, in this type of the disease does not occur.

(3) *Chronic Periarthritis of the Shoulder*

Complete loss of shoulder mobility, persistent pain, atrophy of the muscles of the shoulder girdle, are the cardinal symptoms. The articular surfaces are intact and the lime deposits are absent. Contracture of the pectorals and scapulo-humeral muscles is present, due to a chronic fibro-myositis. The bursal walls are agglutinated by adhesions.

(4) *Calcific Tenosynovitis of the Supra and Infra Spinatus Without Symptoms*

Roentgenologists have noted the presence of calcific deposits in shoulders without symptoms. These lime deposits are usually found in the sheaths of the spinatus tendons. They are probably souvenirs of an ancient tenosynovitis, traumatic in origin. Calcific tenosynovitis is not an uncommon condition, in other tendons of the body. I have recently seen a case of calcific tenosynovitis of the achilles tendon.



FIG 6—Case 5 Three weeks later, treated by abduction, in bed for one week, diathermia for two weeks. Note deposit completely absorbed. Excellent function.

these movements should be performed slowly and thoroughly. While the arm is fully abducted, the elbow is forced backward. During all these movements, the scapula is fixed. It should now be released and allowed to partici-

encouraged to take mild exercises. When healing is complete, a course of baking and massage is given.

Two of my earlier cases in the series indicated above were operated upon. Probably as good results could have been obtained had they been treated conservatively.

In the first case, upon incising the bursal cavity, a small collection of serum was evacuated. Beneath the bursal floor, a soft putty-like mass, the size of an almond, was found lying upon the tendon of the supraspinatus muscles. No adhesions were found. This patient recovered completely in four weeks.

The second case was one of simple exudative bursitis of five weeks duration. The bursal cavity was incised and drained, an abduction cast applied, which he wore for two weeks. This patient obtained excellent function in four weeks.

Comment—In the treatment of subdeltoid bursitis, experience has shown that conservative measures should supersede surgical procedures. Spontaneous recovery occurs even in the calcific variety of the affection. The measure which seems to be most beneficial and gives gratifying results is rest of the shoulder in the abducted position combined with diathermia. The latter is the remedy par excellence.

Eight of the twelve cases, suffering from this affection, responded most remarkably to

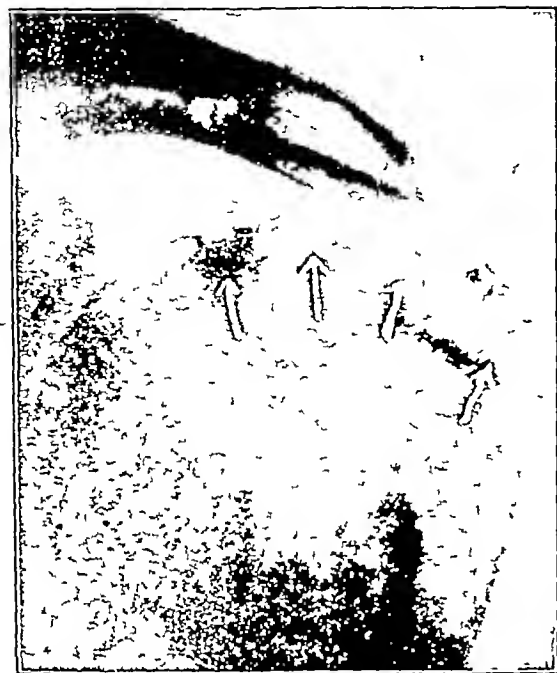


FIG 9—Case 10. Shows a large calcific deposit filling the space between the acromion and the humeral tuberosity and head. Intense pain and spasm. The bursal sac showed a moderate effusion. Duration of disability two weeks.

pate in these motions. A day or two later, the patient is encouraged to actively exercise the shoulder and in the course of time, function gradually returns.

Operations—Occasionally cases treated along the lines referred to above do not respond. The stiffness and pain persist in spite of everything that has been done. The calcific deposit may have entirely disappeared but adhesions between and hypertrophy of the bursal walls remain, which not only interfere with function but produce other symptoms incident to this disease. In these cases, surgical intervention is found necessary. The bursa may be excised or adhesions divided, leaving the sac intact.

If found extensively infiltrated, the walls matted together by dense adhesions, complete excision of the sac is indicated. Lime deposits and granulation tissue beneath the bursal floor are thoroughly cleaned out. The wound is closed in layers without drainage. A bandage is then applied to the shoulder with a thick axillary pad in the axilla to secure slight abduction. At the end of a week, the patient is



FIG 10—Case 10. Two weeks later, treated daily by diathermia. Only a small fragment in relation to the greater tuberosity is now visible. Function returning and pain only on external rotation.

continued for a week or ten days. Tinnitus and nausea may arise, indicating an intolerance toward these drugs. Under these circumstances, the intervals of administration may be lengthened.



FIG. 7—Case 12. Shows a large calcific deposit and sub-glenoid subluxation of the humerus. Duration of disability three months. Muscle spasm and pain intense, moderate effusion in the bursal sac.

Usually, at the end of three weeks, the ordinary case of subdeltoid bursitis with effusion, will have recovered.

While there is no evidence to indicate that focal infections have a relation to this disease, it is wise to eradicate any existent foci (diseased tonsils or bad teeth and the like) because the inflamed shoulder may become a locus minoris resistentia to any infectious process.

If stiffness and pain persist and lime deposits be present, diathermia should be employed. This is, without a doubt, the remedy par excellence in the calcific form of the disease, producing a rapid absorption of the deposits. The marvelous results often seen after two weeks of daily treatment with diathermia, is due to the heat generated within the deeper tissue by the passage of the high frequency current. The improved arterial, venous and lymphatic circulation enhances absorption of effete pathologic products. Inflammatory adhesions, characteristic of so many of these cases, are not so prone to form, if diathermia is instituted early enough.

Calcific Subdeltoid Bursitis Without Sym-

toms—It is a well-known fact that there are numbers of patients with deposits, in either one or both shoulders, which do not give rise to much pain or disability. The question arises whether such cases should be treated. As a prophylactic measure, I believe that these deposits should be removed, preferably with diathermia. As foreign bodies, they may irritate and set up, at any time, an acute inflammation in the bursa, producing the train of symptoms described above.

Chronic Subdeltoid Bursitis—The great majority of cases can be relieved of pain and function restored by persistency in physiotherapy (diathermia, massage and passive manipulations). A small percentage of cases require manipulations under an anesthetic or open operation either excision of the bursa or division of adhesions.

Adhesions, resulting from inflammation of the periarticular structures of the shoulder, may be broken down under ether anesthesia. Complete muscular relaxation must be obtained. The arm is first abducted, care being taken not to strain the joint by over-abduction. An assistant fixes the scapula and fist in the axilla, puts pressure upon the head of the humerus to prevent dislocation. With the arm lying at the side of the chest and afterwards in the position of abduction, the humerus should be rotated inward and outward,



FIG. 8—Case 12. Two weeks later. The deposit has been considerably absorbed. Note the cortical erosion of the greater tuberosity. The head of the humerus is now in normal relation with the glenoid cavity. The patient did not respond to treatment and an operation was advised but refused.

of toxic disturbance trying first this medicinal remedy and that with a steady downward trend. Before this stage is reached the patient should be put to bed for a few days and visitors denied.

Insure sufficient sleep by the administration of veronal or luminol, in fact luminol may be given in quarter-grain doses throughout the waking hours. The patient should not be questioned as to her choice of food but it should be brought to her served in an appetizing manner and she should be urged to partake of it. If plain water is not tolerated weak tea or preferably carbonated water such as the alkaline Kalak or ginger ale which has the advantage of containing sugar should be administered. As improvement is noted her diet may be increased gradually but the resumption of normal activities must be gradual.

Should the condition remain stationary or grow worse as shown by the inability to retain little or any food accompanied by loss of weight and signs of dehydration the patient should be hospitalized and all visitors excluded. Here again I would urge that this be done while treatment will be availing to effect improvement. I have seen many cases in consultation where the physician in charge thought the uterus should be promptly emptied and which had been treated at home in a more or less casual manner and none of the measures tried which today we recognize as of benefit in the treatment of this condition.

The services of day and night nurses are indispensable, the room should have an abundance of fresh air and be as free from noise and disagreeable odors as possible. The treatment must to a certain extent be individualized, but can be summarized for the sake of convenience as follows:

- daily examinations of urine including acetone and diacetic acid determinations
- nothing by mouth for 24 hours
- 500 cc. 10% glucose intravenously to be given very slowly (200 to 250 cc. per hour)
- to be repeated in 12 hours if no improvement is noted
- In addition if dehydration is marked 1000 cc. salt solution intravenously
- Sod bromide grs XL in eight ounces of 5% sodium bicarbonate solution per rectum every 4 hours till patient is quite drowsy. This may be alternated with—5% glucose solution 250 cc per rectum

In some cases the drip method is well tolerated but most patients will retain both glucose and bromide solutions better in small amounts given at once than by the continuous flow.

Titus of Pittsburgh has focused attention upon the intensive use of glucose intravenously.

The writer used glucose intravenously several years ago with rather indifferent result due now I am sure to two reasons *first*, reactions (chill

etc.) which followed its use caused either by the use of impure glucose or by too rapid administration, *second*, to insufficient amounts, since the C P product has been used and its rapidity of administration reduced. I have seen no disagreeable reactions and the improvement has been marked.

Whether the vomiting is the cause of the acidosis or the result (and they are probably both due to the same factor) we need not be particularly concerned so long as results follow treatment.

I have seen striking results follow the relief of dehydration by giving a litre of salt solution subcutaneously or preferably intravenously. Harding and Van Wyck of Toronto lay stress upon the value of fluids and gauge their results by the diuresis resulting, claiming that fluids alone produce results and that glucose is not necessary.

I have seen one case which would seem to argue for this theory. This woman was the nearest to death of any case I have seen recover. She was seen in consultation on a Sunday afternoon, her uterus had been emptied in the Friday previous after five weeks' of vomiting, she grew worse instead of better between Friday and Sunday and I did not believe she would live till midnight, she was sent to the hospital and I quote from the interne's notes:

"Semi comatose young woman, vomiting—markedly dehydrated and very poor color, eyes sunken and face drawn—appears extremely weak, radial pulse not palpable. Systolic B P 70, heart 130. Has apparently lost much weight urine albumin four plus

acetone " "

diacetic acid " "

blood N P N 66 " "

uric acid 85

She was given 500 cc of 3% glucose (15 gms) intravenously and eight ounces 5% glucose per rectum every 3 hours, later 500 cc salt solution intravenously. The next day she had a perceptible radial pulse and her mind began to clear. She retained some ginger ale. After two unsuccessful attempts, a duodenal tube was kept down on the second day and quantities of glucose solution put down, she continued to improve and was discharged in 10 days. That this woman lived, I believe, was due to the glucose solution partially but also to the quantities of fluids given, for the dosage of glucose was small compared to what would have been given her today.

Insulin used in conjunction with glucose intravenously is of value in the case where liver damage is so advanced that complete oxidation of the carbohydrate intake is impossible. It is given with the glucose and the patient should not be left during the administration, in most cases its addition to the glucose is unnecessary. Fluids by the mouth preferably carbonated beverages

diathermia The duration of the disease ranged between ten days and six months. In practically every one, after daily treatment, the X-ray showed, at the end of a month, absorption.

Another remarkable feature that should be emphasized is the effect of diathermia upon

function. The shoulder movements became more free and pain was greatly lessened even after a few treatments.

Surgical Treatment—Excision or division of the adhesions should be reserved for the sub-acute or chronic case which has not responded to the above conservative measures.

THE MANAGEMENT OF VOMITING OF PREGNANCY*

By JAMES K. QUIGLEY, M.D., F.A.C.S., ROCHESTER, N. Y.

ABOUT forty per cent of pregnant women are entirely free of nausea and vomiting, of the remaining, one-half, or thirty per cent, have little more than the morning attack, the balance approximately another thirty per cent suffer more or less all of the day and often into the night from nausea and retain little or no food—this number includes the class known as pernicious vomiting, uncontrollable vomiting or hyperemesis gravidarum. This is no inconsiderable number, almost one-third of our patients and demands the best that we can offer for its relief.

Pregnancy imposes a burden on the metabolism which in half the cases is compensated for and no symptoms result, the remaining fifty per cent suffer from more or less annoying symptoms such as pruritus, localized or general, muscular cramps, headaches, salivation, vertigo, fainting attacks and nausea and vomiting, these in my opinion are all manifestations of toxemia of varying intensity, while there is some basis for the usual text book classification of vomiting viz, reflex, neurotic, toxic and essential or that form in which some pre-existing condition is made worse by pregnancy such as gastric ulcer, cholelithiasis or tubercular peritonitis. Nevertheless I believe all cases are basically toxic.

What this toxic agent is or where elaborated we have no knowledge, but its activity is dependent upon the life of the foetus, for on death of the foetus even though the product of conception be retained, nausea and vomiting cease unless the liver has become so much involved that carbohydrate metabolism is impossible.

That neuroses play a large part in the etiology of some cases is undeniable, but this I think is secondary—and from the standpoint of therapeutics it is better to consider all cases essentially toxic some of which demand special consideration and treatment, and not to lose sight of the fact that any of these cases may pass on to the stage of hyperemesis and consequent liver damage. Examples of purely reflex vomiting are so rare as to be considered negligible.

Vomiting of pregnancy is often worse in each succeeding pregnancy. I have seen a few exam-

ples recently exceptions to the rule, one a patient so toxic as to require a therapeutic abortion a few years ago who in her present pregnancy has had only a little nausea and vomiting, and another also very ill during two previous pregnancies had no nausea and no vomiting in her present one.

Management of mild cases of vomiting is many times discouraging both to patient and physician but with co-operation from the former and with more attention to detail by the latter much can be done to make these patients more comfortable, and what is more important prevent them from growing worse.

Impress upon the patient that her condition in the majority of cases is limited, treated or untreated, and does not persist throughout pregnancy—and that if she follows instructions improvement will follow though she probably will not be entirely free of vomiting before the twelfth week that she should have diversion, fresh air, moderate exercise out of doors with sufficient elimination by the bowels. She should be given food in bed before arising, toast or crackers and black coffee, or if it is found that vomiting is inevitable and contains bile and mucus a copious draught of hot water containing bicarbonate of soda will be almost as efficacious as tube lavage, so that nourishment taken later has a better chance of remaining.

As nausea and vomiting often occur when the stomach is empty a light lunch should be taken midway between meals, in fact five to six lunches are better tolerated than three large meals, solid food is better than liquids and should be chiefly of the carbohydrates. If she expresses a desire however for any particular food it should be tried. The appetite is often capricious and it is well known that women will sometimes retain strange things, for instance, fried ham has been retained where champagne was rejected. Although uncomfortable for a time these patients do not get on so badly for they are enabled to retain nourishment during a part of the day sufficient to prevent loss of weight or energy. When the case passes over to the class of moderate severity I believe time to employ measures sufficiently intensive to prevent hyperemesis, in other words instead of waiting for severe signs

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irradiation should be employed in every case of tuberculous peritonitis before resorting to surgical interference

This form of treatment likewise is of value in connection with tuberculosis of the bones, joints and glands. It cannot be expected that it will entirely replace surgical measures. For example, if there is pus, it will have to be evacuated, and, if there is a sequestrum, it will have to be removed. In my experience, the degree of success in these forms of tuberculosis is not as great as in tuberculosis of the peritoneum. I have had but little experience with the treatment of pulmonary tuberculosis by this means. Those who have had a large experience are cautious in expressing an opinion as to the indications for ultra-violet irradiation in this type of the disease. It would seem important in cases of this kind that the irradiation should not be intense, but should be carried out less vigorously and for a longer period. Where heliotherapy is employed, care should be observed that the patient does not become overheated and, therefore, the treatment had best be carried out in the morning before the sun has reached its meridian.

Many physicians have reported a general tonic effect from the use of irradiation from artificial sources. The general condition of the child is improved, the appetite stimulated, sleep is sounder, and the vigor is more marked. There is no doubt that one or more of these favorable results frequently follow a series of irradiations. In other instances, however, we have failed to obtain any of the desired effects. The appetite remains unaffected, sleep is still fitful, and there is no gain in weight. The puzzling aspect of this experience is that we cannot distinguish by any clinical or laboratory test between those children who will be benefited and others who fail to be improved by this treatment. It is quite true that in general brunettes seem to be improved more than blondes. But although this rule holds as a general principle, it must be accepted with reservations. Probably the marked difference in our results is due not so much to a difference in the constitution of the individual child, as to a distinction in the nature of the symptoms which we are attempting to alleviate.

Ultra-violet therapy is being employed largely to prevent the development of "colds", or so-called "grippe" infections. It is, I believe, the general experience that some children are subject to frequent "colds" and catarrhal infections throughout the winter, a susceptibility which bears no relationship to their general health and vigor. In order to ascertain whether this highly undesirable condition, which often leads to more serious sequelæ, could be abetted by irradiation, a test was carried out in the Home for Hebrew Infants

to ascertain whether a group of young children which were treated regularly by the mercury vapor lamp developed "grippe" infections less frequently than a similar group of children which were not so treated. The children, about 50 in all, were 6 months to 3 years of age and were in 2 wards, one-half the number were irradiated every other day for a period of over 3 months, whereas the others received no treatment whatsoever. This study will be reported in detail at another time. It may be stated, however, that the results were thoroughly convincing that this form of ultra-violet irradiation did not decrease the incidence of these infections. It was found also that this therapy did not prevent the occurrence of whooping cough or of chicken-pox. Some children manifested these diseases in spite of the fact that they had undergone treatment throughout the incubation period, and were still being treated at the time these infectious diseases developed.

Ultra-violet therapy is being used extensively for skin diseases. In my experience, it has been of decided value in preventing and in curing multiple furunculosis. In a case of this kind, the furuncles should be incised and the pus evacuated as it develops, and irradiation carried out in the usual way. The success of heliotherapy has been very marked in some instances. This success may be due in part to the reduction of excessive perspiration, which so frequently is associated with furunculosis. In the treatment of eczema, the results have been unsatisfactory—occasionally good but often nil.

The question is asked frequently as to what type of lamp is most effective in ultra-violet therapy. In this country two types are mainly employed—the mercury vapor and the carbon arc lamps. From a practical point of view, each of these has its peculiar advantages. The mercury vapor lamp, although more expensive, costs less to maintain. Its great advantage, however, is that it can be adjusted to the ordinary light socket and, therefore, can be readily employed in any household. Its disadvantage is that owing to the shortness of the waves of ultra-violet light which it generates, it tends to produce superficial burns, unless its intensity is carefully controlled. The carbon arc light uses at least 15 amperes, and thus cannot be adjusted to the ordinary electric light socket, and is more expensive to maintain. Furthermore, the carbons have to be replaced after they have been burned for some hours, and a disagreeable ash is produced from the burning of the carbons. The chief advantage of this type of lamp is that it does not cause burns and can be manipulated by an untrained or unskilled person. It may be added

like champagne or ginger ale should be given after 24 to 36 hours in teaspoonful amounts, later dry toast or crackers may be tried, still later cooked cereals and dry toast may be added.

While this plan of treatment will clear up most cases of hyperemesis and while fewer cases will require therapeutic abortion than did five years ago nevertheless in order to save life it may rarely be necessary to empty the uterus. What shall be the indications for this procedure? Unfortunately we have no sure test of liver function and are forced to depend upon a clinical summary, rapid loss of weight, vomiting of blood, persistently rapid pulse, lessening of the amount of urine, urine containing bile pigment, we should of course never wait for all of these symptoms and in the last analysis it becomes a question of individual judgment or rather the judgment of two of three. The case that shows no improvement or grows worse after twenty-four hours of treatment as outlined above should be aborted with as little shock as possible under nitrous oxide anesthesia.

A word of caution, cessation of vomiting and retention of food is not always per se, an indication that all is well.

Two years ago a woman was seen outside and later admitted to the hospital, had vomited five weeks but this day had retained solid food and had not vomited. Her pulse was 90, there was only a trace of acetone and diacetic acid, she was given fluid subcutaneously and glucose per rectum, on the second day she received glucose intravenously. Because of a rising pulse she was aborted on the third day and given glucose intravenously three times. She died and on autopsy a typical liver of acute yellow atrophy was found.

CONCLUSIONS

1 More intensive treatment of vomiting of moderate severity will prevent many cases from becoming pernicious.

2 Intensive treatment of the pernicious type with fluids and glucose solution preferably intravenously will prevent many therapeutic abortions.

THE USE AND MISUSE OF ULTRA-VIOLET THERAPY*

By ALFRED F HESS, M D, NEW YORK, N Y

THERE can be no doubt that we are on the wave—whether on the crest is still uncertain—of a remarkable manifestation of interest in irradiation. This form of therapy is being employed not only by physicians and surgeons in almost every branch of medical practice, but is being made use of by the layman as well. Under the circumstances, it would seem opportune to consider what experience has taught us in relation to the use of this new therapeutic agent.

It is a commonplace to state that ultra-violet therapy, whether carried out in the form of heliotherapy or by means of radiations from artificial sources, is a specific in the cure or prevention of rickets and tetany. All reports have been in agreement in this regard, and there have been no dissenting voices. The degree of specificity in relation to these two allied disorders is exceptional, for whereas most specifics fail from time to time, for example quinine in malaria or mercury in syphilis, ultra-violet irradiation seems to be well nigh an absolute specific. In cases where cod liver oil—another specific in rickets and tetany—fails in its curative properties, ultra-violet irradiation will frequently prove effective. Even in relation to the rickets of the premature baby, who is peculiarly susceptible to this disorder, this form of light therapy has been found to

be of unequalled value. A similar preventive or curative effect can be brought about in an indirect way. As I showed about two years ago, it is possible to convert inert foods into active antirachitic substances by means of exposing them to ultra-violet irradiations. For example, a vegetable oil, such as cotton seed oil, can be metamorphosed in this way. Vegetables, such as spinach or carrots, have been shown to acquire protective potency by this procedure and to have developed curative properties for rachitic infants. The same is true for dried milk, which in this connection seems to offer the most promising outlook for therapeutic purposes.

In addition to its use in rickets and tetany, there can be no doubt but that ultra-violet irradiation is of great value in tuberculosis. I have seen infants and young children who were suffering from progressive tuberculosis of the peritoneum cured by means of heliotherapy or the radiations from a mercury vapor or carbon arc lamp. When the radiotherapy was begun, these children were poorly nourished and showed the typical symptoms of this form of tuberculosis—abdominal masses associated with fluid in the peritoneal cavity. As the result of a few months' treatment, the picture was entirely changed. Their general condition had greatly improved, they had gained in weight and the local signs had either disappeared or markedly diminished. Ultra-violet

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of the point of view which was held some 25 years ago when the Roentgen rays were first introduced into clinical medicine. The comparison is probably somewhat exaggerated, but it is suggested by the uncritical use of these radiations at the present time. Until we learn more of the physiological action of these short rays, great care should be exercised both in regard to the selection of cases and in the dosage in which they are employed. In this connection, a word may be in place in regard to carelessness in protecting the eyes in the course of carrying out this therapy. As is well

known, ultra-violet rays are irritating to the eyes and produce a painful conjunctivitis. In order to avoid this irritation, the operators are strongly advised to wear colored glasses. It has been my experience that many physicians and technicians fail to apply these glasses. In view of the fact that cataract is of such frequent occurrence in India, and that this high incidence has been ascribed by many to the marked intensity of the sun in that country, it is possible that years of frequent exposure to the radiation from these lamps might lead to similar changes in the lens.

FURTHER ADVANCEMENT IN THE TECHNIQUE AND INTERPRETATION OF CHOLECYSTOGRAPHY BY THE ORAL METHOD*

By WILLIAM H STEWART, M D, and ERIC J RYAN, M D, NEW YORK, N Y

SINCE Drs Graham, Cole and Copher have shown us how to render the bile opaque to the X-ray and thus make it possible to visualize the gall bladder we have been able to materially increase the percentage of our correct roentgenographic findings in cholelithiasis and pathology of the gall bladder.

The intravenous injection of tetrabrom and tetraiodo phenolphthalein as recommended by the originators of the method was so disastrous to the patient that we were forced to discontinue this method of administration. It became evident at once that if there was any hope of visualization of the gall bladder becoming as valuable as the visualization of the gastro-intestinal tract the method must be simplified so that it would be safe and could be used as a *routine office procedure* not requiring the hospitalization of the patient. Investigations were then made with the oral administration of the dye.

It soon became apparent that to obtain the best results the dye must not come in contact with the acid secretion of the stomach, but must pass on unchanged into the intestinal tract where absorption could take place. What we needed to accomplish this was a safe and reliable coating to pills or capsules containing the dye which would hold them intact in the stomach and allow them to be broken up in the intestinal tract. Up to September, 1925, we used tetraiodophenolphthalein in freshly made five grain keratine coated pills. They gave very satisfactory results, as the work was perfected, however, the demand for these pills became so great that the X-ray department assumed the appearance of a pill-making factory. About this time it became evident that the iodine salt was a very unstable drug, light and air rapidly deteriorating it to such an extent

that its value in rendering the bile opaque was markedly lessened. Some of the manufacturers of the dye were then persuaded to supply it in sealed, colored ampules, a single dose in each. This has overcome the deteriorating question. We then ceased the pill-making job and placed the fresh drug from the ampules into plain gelatine capsules which were dipped into a solution of keratine, this sealed them airtight and covered them with a coating which would prevent them from being broken up in the stomach. They are made up fresh for each case. In a great measure this has overcome any unreliability to the X-ray findings following the oral administration of the dye. In fact, we now have sufficient confidence in the method to use it routinely in our office, it is simple and efficient and can be carried on much the same as investigations of the gastro-intestinal tract with the barium meal.

It has recently been stated by a number of our roentgenological friends throughout the country that there is much more reaction following the oral than the intravenous administration of tetraiodo. This has not at all been our experience, in fact, of late, we do not have any reaction, unless one classifies as such, a slight nausea, one or two loose movements or an occasional vomiting attack. When this does occur it in no way incapacitates the patient. Without exception they appear at the office the morning following the administration of the dye and are strong enough to undergo the examination without breakfast and continue their fast until lunch time, about eighteen hours in all with no inconvenience.

There has been considerable controversy as to the relative value of the intravenous when compared with the oral method of applying the test. We do not admit that the oral method, properly carried out is less reliable than the intravenous. In fact, we particularly take ex-

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that the spectrum of its radiations approaches more nearly that of the sun

We do not know the physiological effect of the ultra-violet rays - That it leads to local and systematic changes is evident. Various constitutional alterations have been described, some claiming that the metabolic rate is increased and others that it remains unaltered. Pigmentation of the skin is brought about by the rays from these artificial sources. It is similar, but by no means the same, as the pigmentation which develops as the result of exposure to the rays of the sun. It is of a more brown and less ruddy shade. The skin becomes smoother and of a better texture, it is more elastic and seems to be found down more firmly on the underlying connective tissue. The muscles also become firmer and fuller. These changes in the skin and subadjacent tissues formed one of the most marked and distinctive points of differentiation between the group of children which had been irradiated regularly throughout the winter, and the group which had received no such treatment.

Our chief difficulty in carrying out this form of therapy lies in the fact that we have no adequate method of measuring the dosage. Many gauges have been suggested for this purpose but none is satisfactory. At the present time we are forced to follow a purely empirical method. In the case of the mercury vapor lamp, our guide as to the intensity of treatment—duration of irradiation and distance of lamp—is the avoidance of marked erythema or superficial burns. As a matter of fact, neither erythema nor pigmentation is a correct gauge of therapeutic dosage. By employing small and frequent applications of these irradiations, I have been able to cure cases of rickets without bringing about the slightest degree of erythema or pigmentation. It is not difficult, however, to judge whether we are giving a sufficient degree of irradiation. This fact can readily be ascertained by observing the course of the disease, for example, in the case of rickets by noting the improvement of the clinical signs, the calcification of the epiphyses as seen by the Roentgen rays and the increase in the percentage of inorganic phosphorus in the blood. But how are we to know whether the intensity is unnecessarily great and, furthermore, is it of no consequence whether we employ too great an intensity?

It has been my experience in general—observations which were borne out in the study carried out this winter—that children frequently do well following the initial treatments but that this phase is succeeded by a static period. Sometimes improvement is noted after 3 or 4 treatments, and then ceases, more often, this second phase comes about after 8 or 10 treatments. Our procedure in treatment, which is

entirely empirical, is as follows. Irradiation is carried out every other day for a period of a month to six weeks. Then an interval of 2 to 4 weeks is allowed and the course of treatment is repeated, if this is found to be necessary. The lamp is placed at a distance of 3 feet from the body and exposures are made for 2 minutes on the front of the body and 2 minutes on the back. This duration is increased 1 minute on the front and back at each succeeding exposure. These rules are merely of general application and must be modified according to the individual case. As is well known, blondes are more sensitive to these radiations and are apt to burn as the result of their application. We must, therefore, be especially on our guard in treating fair individuals. The same is true in regard to markedly atrophic infants.

The initial phase of marked improvement which has been noted clinically can be substantiated by observations in the laboratory. Recent investigations would seem to show that the effect of irradiation in rickets is due largely to an activation of the cholesterol in the epidermis. It has been demonstrated in a series of papers that cholesterol, which is present in every animal cell, although inert in relation to rickets, becomes a specific antirachitic substance after exposure to ultra-violet radiations.

Now the epidermis is particularly rich in cholesterol, and it is probable that the effect of these radiations, which we should remember have very slight penetrating power, is to convert this inert epidermal cholesterol into an active antirachitic substance. Laboratory experiments seem to indicate that this cholesterol is not activated in direct ratio to its exposure to ultra-violet radiations, but that it undergoes a sudden and somewhat precipitous activation at the outset of irradiation. In other words, these laboratory experiments seem to bear out and fortify the clinical experience of an exceptional activation following initial treatment with ultra-violet light. The studies of the laboratory likewise warn us of the possible dangers of over-irradiation. If we continue the irradiation of cholesterol for too long a period, let us say for 3 or 4 hours or more, it is found that although it had been activated, it has been converted once more into an inert substance, and that when fed to animals, it is no longer able to protect against rickets. Furthermore, it cannot be reconverted into an active chemical material. Although these laboratory investigations should not be transferred bodily into the clinic, they lend weight to the dangers of over-irradiation and to a possible negation of our results by exposures which are unduly prolonged.

We are still in the stage where many look upon ultra-violet light as an agent which can do much good but no harm. It reminds one

of the point of view which was held some 25 years ago when the Roentgen rays were first introduced into clinical medicine. The comparison is probably somewhat exaggerated, but it is suggested by the uncritical use of these radiations at the present time. Until we learn more of the physiological action of these short rays, great care should be exercised both in regard to the selection of cases and in the dosage in which they are employed. In this connection, a word may be in place in regard to carelessness in protecting the eyes in the course of carrying out this therapy. As is well

known, ultra-violet rays are irritating to the eyes and produce a painful conjunctivitis. In order to avoid this irritation, the operators are strongly advised to wear colored glasses. It has been my experience that many physicians and technicians fail to apply these glasses. In view of the fact that cataract is of such frequent occurrence in India, and that this high incidence has been ascribed by many to the marked intensity of the sun in that country, it is possible that years of frequent exposure to the radiation from these lamps might lead to similar changes in the lens.

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The intravenous injection of tetrabrom and tetraiodo phenolphthalein as recommended by the originators of the method was so disastrous to the patient that we were forced to discontinue this method of administration. It became evident at once that if there was any hope of visualization of the gall bladder becoming as valuable as the visualization of the gastro-intestinal tract the method must be simplified so that it would be safe and could be used as a *routine office procedure* not requiring the hospitalization of the patient. Investigations were then made with the oral administration of the dye.

It soon became apparent that to obtain the best results the dye must not come in contact with the acid secretion of the stomach, but must pass on unchanged into the intestinal tract where absorption could take place. What we needed to accomplish this was a safe and reliable coating to pills or capsules containing the dye which would hold them intact in the stomach and allow them to be broken up in the intestinal tract. Up to September, 1925, we used tetraiodophenolphthalein in freshly made five grain keratine coated pills. They gave very satisfactory results, as the work was perfected, however, the demand for these pills became so great that the X-ray department assumed the appearance of a pill-making factory. About this time it became evident that the iodine salt was a very unstable drug, light and air rapidly deteriorating it to such an extent

that its value in rendering the bile opaque was markedly lessened. Some of the manufacturers of the dye were then persuaded to supply it in sealed, colored ampules, a single dose in each. This has overcome the deteriorating question. We then ceased the pill-making job and placed the fresh drug from the ampules into plain gelatine capsules which were dipped into a solution of keratine, thus sealed them airtight and covered them with a coating which would prevent them from being broken up in the stomach. They are made up fresh for each case. In a great measure this has overcome any unreliability to the X-ray findings following the oral administration of the dye. In fact, we now have sufficient confidence in the method to use it routinely in our office, it is simple and efficient and can be carried on much the same as investigations of the gastro-intestinal tract with the barium meal.

It has recently been stated by a number of our roentgenological friends throughout the country that there is much more reaction following the oral than the intravenous administration of tetraiodo. This has not at all been our experience, in fact, of late, we do not have any reaction, unless one classifies as such, a slight nausea, one or two loose movements or an occasional vomiting attack. When this does occur it in no way incapacitates the patient. Without exception they appear at the office the morning following the administration of the dye and are strong enough to undergo the examination without breakfast and continue their fast until lunch time, about eighteen hours in all with no inconvenience.

There has been considerable controversy as to the relative value of the intravenous when compared with the oral method of applying the test. We do not admit that the oral method, properly carried out is less reliable than the intravenous. In fact, we particularly take ex-

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ception to the stereotyped assertion that the oral method should be checked with the intravenous

It is well to state that this work is not simple, it tries the skill of the roentgenologist to the utmost and necessitates the use of every known X-ray "stunt" in the making of a gall bladder examination, particularly does it require an intelligent patient who can and will suspend respiration during the making of the films. Reassurance on the part of the doctor and confidence on the part of the patient are absolutely essential before there can be any hope of success. Other things being favorable, the use of a gas tube and compression on a Potter Bucky Diaphragm will give the best results.

In making a roentgenographic examination of the gall bladder by the oral method the following technique must be accurately followed. The gastrointestinal tract should be thoroughly cleansed. This is best accomplished by a mild cathartic administered the night before the preliminary examination followed by a simple enema in the morning. This preliminary, or examination of the gall bladder before the administration of the dye, is best made in the afternoon. At 6 30 P. M., the following meal is advised. A thick soup, creamed chicken, baked potato if desired, bread and butter and a glass of milk. Commencing at 9 30 P. M. two five-grain capsules of the tetraiodo prepared as recommended are given every fifteen minutes with a small glass of water until 40 grains have been taken, which is the average dose for an individual weighing 150 pounds. The patient reports at the office the following morning at 9 30 A. M., twelve hours after the administration of the dye, "no breakfast being the rule." Four hours later, at 1 30 P. M., the examination is repeated. Regular lunch is then allowed followed by a reexamination one hour later. The patient reports the next morning for a final observation.

At least three roentgenograms should be made at each observation. It is well to develop one of these to be sure that the position and exposure is correct.

It is important to make a preliminary examination before the test, for the findings may be such as to make a diagnosis possible without the use of the dye.

The fatty meal is given to empty the gall bladder so that it will be in a receptive condition by the time the bile becomes opaque. The starvation from dinner to lunch the following day is essential in order to allow the gall bladder to fill and the bile reach its greatest concentration.

In normal cases the shadow should appear 12 hours after the dye is given, it should slightly diminished in size and become more in-

tense four hours later, as soon as food is given it should further diminish in size and detail or completely disappear. The following morning, thirty-six hours after the tetraiodo there should be no shadow of the gall bladder.

The technique having been developed to such an extent that it *can absolutely be relied upon*, it is obvious that our attention must be centered on the interpretation. It is now apparent that gall bladder lesions are recognized by both direct and indirect evidence. The most important of the *direct* signs is the actual visualization of non-opaque gall stones, these stones are recognized as circular negative shadows surrounded by the opaque bile. Some stones are not entirely non-opaque, the quantity of calcium salts, however, is so small that the detail without the dye is unsatisfactory. With the dye the roughened surfaces absorb sufficient of the opaque bile to accentuate the shadows so that they are readily recognized. Mottling of the gall bladder indicates small stones. One must be *extremely* careful in this interpretation, however, for gas in the duodenum often assumes small circular shadows similar to non-opaque stones. The danger of mis-interpretation is much greater when the duodenal shadows overlap those of the gall bladder.

Even with the aid of the test all gall stones cannot be visualized. It has happened that a calcium stone shown with the ordinary method of examination has completely disappeared by being overshadowed with the opaque bile. In the study of many series of cholecystograms we note that not unfrequently a small non-opaque gall stone will become visible as the gall bladder empties. Distention, while necessary in studying the function, often completely obliterates shadows within the lumen of the gall bladder, thus demonstrating the necessity of examinations both before and after the test as well as during the filling and emptying of the gall bladder with the opaque bile.

In a number of cases where the disturbance of function or deformity indicated a chronic cholecystitis, the surgeon at operation not only found a thickened wall gall bladder but stones as well. Here the shadow of the opaque bile in addition to that cast by the thickened wall of the gall bladder completely overshadowed the gall stones. In other cases the gall bladder is packed with non-opaque stones and as no dye impregnated bile can enter, the stones will not be recognized although the pathology will.

The second direct sign is deformity of outline. This may be due to a number of causes, the most common being adhesions. These adhesions may be of gall bladder or omental origin. When they are caused by cholecystitis the shadow is more apt to be deformed and the edges are likely to be roughened and

irregular, when caused by omental adhesions the *deformity* is present but as a rule the edges are clear cut and the entire outline of the gall bladder quite distinct. It has been noted that a deformed gall bladder shows best when partially empty. We have had numerous cases in our series which confirmed this statement. Adhesions of peri-cholecystitic origin may involve the duodenum, liver or colon without producing deformity. They can be recognized by malposition and fixation.

Probably much of the future development in cholecystography will be the early recognition of deformities to the gall bladder caused by pathology. It is often difficult to differentiate a deformed gall bladder due to adhesions and one due to pressure or to an anomaly.

One must bear in mind that one of the most important values of the Graham Test is in the detection of disturbance of function of the gall bladder. Up to the present time this disturbance has been recognized by four different variations to the normal sequence of the gall bladder shadow as it appears after the administration of the dye. These may be enumerated in their order of importance as follows:

- 1 Absence of shadow
- 2 Persistency of shadow
- 3 Faintness of shadow
- 4 The late appearance of the shadow

1 *Absence of Shadow*—Any obstruction to the cystic duct either from an intrinsic or extrinsic cause will prevent the opaque bile from entering the gall bladder giving a "no shadow" finding. Most common cause of obstruction is from a stone or stones, stricture of the cystic duct will obviously give the same finding. Obliteration of the lumen of the gall bladder, the result of an old chronic inflammation or a gall bladder packed with stones, will also fail to give a shadow. One must not forget that impaired liver function may fail to provide sufficient opaque bile to cast a shadow.

It is well to pass on a word of warning in "no shadow" cases. Always confirm the findings by a reexamination to be sure it is not due to some fault in the technique.

2 *Persistency of Shadow*—When the shadow of the gall bladder does not markedly diminish

in size after food and persists thirty-six hours after the administration of the dye we may reasonably conclude that the normal function is interfered with by pathology. This deduction has been repeatedly proven to be correct by the surgical findings of chronic cholecystitis in these cases.

3 *Faintness of Shadow*—When one has perfected and standardized the technique to such an extent that it can absolutely be relied upon then the finding "faintness of shadow" is of great importance, for it means a disturbance to the concentrating power of the gall bladder caused by chronic inflammation. "Faintness of shadow" is often associated with "persistency of shadow," the causative factor being much the same. Faintness of shadow and mottling are the two most treacherous findings. Be extremely careful in these interpretations. Do not hesitate to make a confirmatory examination.

4 *Late Appearance of the Shadow*—This rather rare finding must be mentioned, for in a number of cases in our series the gall bladder shadow did not appear until thirty-six hours after the dye was given. All were proven to be pathological.

It is interesting to note that in some cases in which gall stones are visualized by the test the gall bladder still shows fairly good function.

In no instance should he neglect to examine the gastrointestinal tract, many times the supporting evidence of duodenal or intestinal adhesions to the gall bladder confirms what may have been a questionable diagnosis. All cases referred to us for gall bladder examinations have the stomach and colon gone over after the completion of the tetraiodo test.

We have already spoken in other communications of the great value of visualizing the gall bladder in the differentiation between nephro and chole lithiasis. Is it much simpler and less distressing to the patient to map out the gall bladder by opaque bile than it is to outline the kidney, pelvis and calices by pyelography, in either case we should be able to make the differentiation.

This paper is based on observations made on clinical cases, all examined by the oral method.

PRURITUS* CAUSES, EFFECTS AND TREATMENT

By S POLLITZER, NEW YORK, N Y

I AM to discuss this evening the subject of itching. When we use a Latin word *pruritus* instead of the common English term, we do not thereby change the character of the affection. *pruritus* remains merely a symptom and it is not a disease in itself. Itching regularly accompanies a large variety of skin diseases—eczema, lichen planus, scabies, pediculosis, etc.—but for convenience we restrict the term *pruritus* to that disturbance in cutaneous sensation in which there is apparently no preceding or primary disease of the skin. We speak then of essential *pruritus*.

Essential *pruritus* may be defined as a chronic intermittent sensory neurosis dependent on an abnormal excitation of tactile sense-organs apparently not related to any preceding organic change in the skin. The question at once arises whether or not the term essential as thus used is not merely a cloak to our ignorance, whether there is not in every case of itching a physical or chemical change in the skin too subtle for our gross methods of observation. While perhaps most cases of *pruritus* are dependent on such delicate changes in the skin that they cannot be recognized, we know that disorders of the central nervous system are capable of giving rise to itching just as they more commonly occasion other cutaneous paresthesias. The neurological literature contains many illustrations of the central origin of *pruritus*. Unilateral itching has been noted in cases of central embolus with paraplegia, an intractable *pruritus* at the beginning of a progressive paralysis, etc. Still more striking are those cases of itching which are purely psychic in their origin, as when a whole class of medical students will begin to itch during the clinical demonstration of a case of pediculosis, where the possibility of a disorder in the skin itself seems out of the question. Equally convincing for the existence of *pruritus* without local changes in the skin seems to be the reflex itching to which we shall refer later.

On the other hand, it cannot be denied that the *pruritus* of apparently central origin may be due to local changes in the skin brought about by motor impulses affecting the local circulation or the cutaneous muscles, the *arrectores pilorum*. Flushing or blanching of the skin is a common accompaniment of central lesions and of psychic impressions, and goose flesh, *cutis horrida*, is often the resultant of a mental state. These considerations serve to illustrate some of the difficulties and complexities of the problem of the pathogenesis of itching. Regarded in this light the occurrence of *pruritus* of central origin may be explained as only indirectly of central origin, the nerve centers producing local disturbances in

the skin through the intervention of the motor apparatus. The *pruritus* of central origin would thus be brought into the large group of cases in which the symptom is provoked by mechanical irritation.

Mechanical irritation, irritation of the sensory end-apparatus in the skin, is, it is well known, a common cause of itching. A simple experiment made by Hebra, half a century ago, illustrates the relation of itching to mechanical stimuli. When the skin is gently stroked as with a feather, a sensation of tickling is experienced. If the stroking is continued the tickling after a time passes over into a sensation of itching. This experiment is one of fundamental importance for our ideas of the pathogenesis of *pruritus*. It establishes the fact that itching may be provoked by long continued gentle stimulation of the superficial tactile nerves. It affords an immediate explanation of all that large group of cases of *pruritus* in which the itching is provoked by prolonged mild external irritation as from woolen clothing, and it offers a possible explanation of the itching that arises from exposure of the warm skin to the colder air of the bedroom. Circulatory changes in the skin or stimulation of the *arrectores pilorum* may serve as the immediate source of the irritation of the cutaneous nerves.

An obvious objection to this explanation of the pathogenesis of itching in such cases at once presents itself in the circumstance that these causes are operative in only a very small number of people. Most people do not itch on removing their clothing, not even when they experience the contraction of the hair-muscles producing goose-skin. We are forced to the conclusion that there is in these cases of *pruritus* another factor, and this factor may be found in the assumption of a hyperesthesia of the tactile nerves which underlies every case of *pruritus*. The cause of this hyperesthesia must be sought in some chemical change of the blood.

There is a large group of cases of *pruritus* commonly associated with systemic diseases in which some noxious substance is present in the blood. I need only mention icterus, diabetes, albuminuria, tuberculosis, cancer, mycosis fungoides, the leucaemias, chronic intestinal disorders, helminthiasis, etc. In this category too we may place the *pruritus* following the use of various drugs—morphine, belladonna, arsenic, etc. In all these conditions there are toxic substances in the system which reach the cutaneous nerve ends by way of the blood-stream and there acting continuously over long periods bring about that hyperesthesia which readily may pass into the sensation of itching. It seems a reasonable deduction from these well-known facts to assume that in every case of general *pruritus* there are

* Read before the New York Academy of Medicine, January 21, 1926

chemical substances in the blood, for the most part unknown in their nature and origin, which serve to sensitize the cutaneous nerves. This hypothesis of a prerequisite chemical change in the blood in chronic pruritus is fortified by the circumstance that itching produced by mechanical irritation as in the Hebra experiment, which may be regarded as a physiological pruritus, ceases when the tickling is stopped.

We may digress here a moment to consider the itching in certain common skin diseases, such as eczema and scabies. It is often assumed that the itching in these cases is due to the exposure of nerve ends resulting from the vesicles of eczema or the burrowing of the acarus. But exposure of cutaneous nerve ends does not in itself cause itching. The superficial layers of the epidermis may be removed entirely as by a traumatic abrasion or by the blister of a second-degree burn, and yet this denuded area does not itch. There is, however, in the cases of eczema, scabies, etc., a local toxic element, the product of the activity of infecting germs in the eczemas, or of the acari in scabies. It is of course true that there are lesions of the skin accompanied by itching which are not caused by local infection. So, for instance, lichen planus in which we have sometimes a most intense pruritus. It is true that in this disease we find all degrees of itching, some cases itching, but moderately and some not at all. It would seem a hopeless task to seek the cause of itching in a disease of whose real nature we know nothing, one moreover in which the symptom of itching may be present or may be absent. It is conceivable, however, that the itching in this disease belongs in the category of pruritus from prolonged mechanical irritation. In lichen planus there is a dense cellular infiltration, especially involving the interfollicular areas of the skin and often terminating at the side of a follicle. These structures, the hair follicles, are surrounded by a close network of the finest nerve fibres which makes each hair, in a peculiar sense, a tactile organ, the relatively firm structure of the projecting hair serving as a lever-arm to convey exaggerated sensory impressions to the nerve fibres which surround its root sheath. The papillary infiltration may disturb the normal relations of the hair-follicle nerves and acting as a continuous source of irritation bring about the pruritus which, moreover, will vary in degree in different cases with the precise location of the infiltration in relation to the hair follicles.

In somewhat the same way we may explain the itching that as a matter of common experience accompanies the healing of a wound under a scab by secondary intention. The relatively inelastic crust creates abnormal conditions of pressure and tension in the area affected and is thus the source of the continuous mild tactile irritation which we have seen to be a cause of itching. These speculations cannot, I am well aware, be

regarded as demonstrated truths, but they may have a certain value in simplifying our ideas of the causes of itching, in reducing the apparently complex and heterogeneous sources of pruritus to lower terms.

The degenerative changes that take place in the senile skin are commonly regarded as a cause of itching. We speak in fact of a senile pruritus. It seems to me very questionable whether the changes that take place in the skin in old age are in themselves capable of producing itching. In the first place, everyone who does not die too soon, reaches old age, and pruritus is happily by no means inevitable in the aged. We are all acquainted with old people whose dry, wrinkled, atrophic skin gives them no trouble at all. On the other hand, there are severe cases of pruritus in the aged whose skin is smooth and well nourished. Old age is especially prone to degenerative changes in important organs whose malfunction results in the occurrence and accumulation of toxic substances in the blood. I need only mention the kidneys, the liver and the glands of internal secretion. From this point of view, itching in old people falls into the category of pruritus from toxæmia, and the term senile pruritus is inappropriate.

Among common disorders in the aged are those arising from degenerative changes in the arteries. General pruritus is sometimes observed in the arteriosclerotic. While it is possible that the sclerotic processes may affect the cutaneous blood vessels in such a way as to bring about disturbed relations of an irritative character to the cutaneous nerve ends, it seems to me far more probable that it is the disorders of important viscera, due to the arteriosclerosis which affects them and results in the accumulation of toxic substances in the blood, to which the pruritus must be ascribed.

Localized itching associated with a definite disorder of one of the viscera, is often assumed to be of reflex origin. Diseases of the rectum, of the prostate, a stone in the bladder, or in the pelvis of the kidney, pregnancy and uterine disorders, are supposed to be the cause of irritative processes which are reflected on the skin of the anal, perineal or pudendal region as a pruritus. While many of these cases, perhaps the majority, are undoubtedly caused by toxic or autotoxic processes, the possibility of their origin in continuous local irritation at the visceral site of the disorder, cannot be excluded. We must assume then that this local visceral irritation is transmitted to the spinal ganglia, passed on to the sensorium and there referred to the cutaneous ends of the nerves supplying associated areas in the skin. Sensations of heat, pain and various paresthesias in the glans penis from prostatic disease and in the upper inner portion of the thighs from renal diseases is a well established clinical fact. A

modification of the original stimulus, may, we can readily understand, give rise to itching

Itching at the anus, perineum and the pudenda constitutes the most commonly encountered form of local pruritus. It is precisely in this portion of the integument that the opportunities for local infection are most abundant. Whether the disorder has its inception as a pure reflex neurosis or not is of little practical importance. The itching is immediately followed by friction or scratching with the inevitable result of local infection of the affected area. In actual practice we never encounter uncomplicated cases of pruritus of the anal and pudendal regions, but invariably those changes in the structure of the skin which are brought about by attempts to relieve the itching. In recent years, it is especially Winfield and Montague who have made valuable studies on the bacteriology of so-called pruritus of the anus and perineum. In far the greater number of cases of this kind the pruritus, as we see it, is due to eczema caused by infection. An infinitesimal tear at the anal ring produced by abnormally hard feces, or by friction with toilet paper, or the congestion and consequent moisture at the anus due to hemorrhoids may be the starting point of an infectious eczematous process, or in the case of vulval pruritus, friction following the slight irritation of a leucorrhoeal secretion, may initiate the disease. A drop of urine, especially diabetic urine, by affording a better soil for the growth of bacteria and fungi may serve as the original cause of the infection.

One of the most common effects of pruritus is the development, in circumscribed or more extensive areas, of the secondary changes in the skin which we call lichenization, constituting the lichen circumscriptus chronicus of Vidal. In this condition which we find most frequently on the labia, the upper inner portion of the thighs, on the back of the neck in women, on the acrotum and at the anus in men, the skin is dry and greatly thickened in the affected areas. On inspection we find that the hypertrophy is due to a thickening of the normal cuticular areas and at the periphery of the patch such hypertrophied fields resembling lichen planus papules may be seen. This is the disease formerly known as chronic circumscribed eczema. While it is not a constant and inevitable sequence of localized pruritus, pruritus is a necessary antecedent of the condition. For an understanding of the process we must assume a systemic disturbance, toxic or auto-toxic, which sensitizes the cutaneous nerves. The itching may be initiated by anyone of a host of minor accidents, the sting of an insect, the drying of a drop of secretion, etc., or it may fall into the category of reflex itching. The friction which is the immediate response to the itching causes a local hyperæmia which results in a pouring out of lymphocytes. The local structural changes in turn aggravate the itching which causes more scratching, which again

aggravates the local structural changes. And so we enter into a vicious circle: itching, scratching, exudation, more scratching, more exudation, more itching. The underlying cause of this disorder is a vice of the system affecting some chemical change in the blood. It is frequently dependent on intestinal, especially colonic disorders, it is often the effect of disturbances in the endocrine balance. It is far more frequent in women than in men, and is often associated with menstrual irregularities, especially with the irregularities at and following the menopause.

To sum up these views on the etiology of chronic pruritus, I should say that this symptom depends in general on the presence of some toxic products in the blood and, in a small number of cases of localized pruritus it may be the transferred cutaneous expression of visceral irritation. Whether of toxic or of reflex neurotic origin the recurrent attacks of itching require for their inception some local disturbance in the skin affecting if only momentarily a change in the circulation or in the cutaneous muscles. These local, for the most part, insignificant disturbances, derange the harmonious balance of cutaneous sensation and serve in the sensitized as the trigger which discharges the pruritic attack.

The local effects of pruritus are those which result from the hyperæmia of prolonged friction and from local infection. The pruritic skin is always thickened and more or less excoriated. In small areas as in the ano-genital region we constantly find the secondary effects of the itching, —eczematization or lichenization. The systemic effects of the disorder vary with the severity and frequency of the attacks. In bad cases the patient, losing all restraint, tears and excoriates the skin, the scratching being accompanied by a voluptuous sensation, and it is only when the skin is raw and streaming with blood that the pale and exhausted victim finds relief. Such attacks lasting five to fifteen minutes or longer may recur several times in a night. It is obvious that these repeated nerve-storms together with the resulting loss of sleep must have a severely depressant effect on the system. In children pruritus is always associated with urticaria or with the papular lesions we call prurigo. Strictly speaking these conditions should be considered with pruritus, but the invariably association with these morphological changes in the skin, somewhat illogically takes them out of the class of cases which we are discussing here.

In the treatment of pruritus we cannot expect a permanent cure unless we can remove the cause. It is needless to emphasize the importance of a careful clinical examination. Urine, feces and blood must be examined, a pruritus may be the first symptom of a visceral cancer or of a leucæmic disease. Even the mouth and teeth should not be neglected. In reflex pruritus the removal of a stone in the bladder or the kidney, of a pelvic

infiltrate, etc., will be the first step in the cure of the itching. Where the systemic causes are toxic, resulting from organic diseases of the liver, kidneys etc., the treatment will afford relief only when the underlying organic disease can be cured or mitigated. I have had excellent results from the administration of ovarian substance in pruritus following the menopause. It is the class of cases in which the toxic products in the blood are the result of abnormal chemical processes in the gastro-intestinal tract that offer our best field for therapeutic efforts. In the majority of cases of this kind while we may not be able to specifically determine the nature of the abnormal processes, benefit may be obtained from a radical change in the diet. Such change of diet may be indicated by the symptoms of abnormal fermentative processes, of a catarrhal enterocolitis or by constipation. In the absence of direct indications it is often of advantage on purely empirical grounds to put the patient on a strict vegetable diet. The chemistry of the intestinal tract may be favorably altered by colonic irrigations and implantation, or by the administration of large quantities of bacillus acidophilus cultures. Sedatives and especially narcotics should be absolutely interdicted.

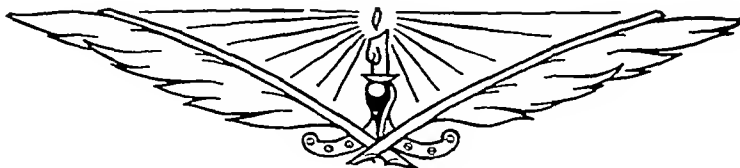
Whatever the results of our attempts at determining and removing the systemic causes of the pruritus, local measures directed to the skin are of almost equal importance. From what has been said on the effects of friction and the cycle of itching, scratching, local changes and more itching, it is evident that efforts must be directed to relieving the cutaneous symptom. To this end we must in the first place, enlist the aid of the patient. He must make every effort to control the impulse to scratch. The mental attitude of the patient towards his itching is of importance. Klauder, of Philadelphia, has recently published

an interesting series of cases in which the pruritus of neurotic origin was cured by psychotherapy.

We possess a large series of remedies for the symptomatic relief of itching. The patient's skin should be protected against external contacts and temperature changes which precipitate an attack through disturbance of the lanugo hairs. Swathing the patient in cotton wool has been employed with benefit, better and simpler is to cover the entire integument with a layer of Unna's glycerine-zinc-gelatine. As a rule, lotions containing phenol, tar and menthol in very small percentages, are preferable to salves, but the remedies mentioned may be incorporated in an ointment when the patient's skin seems abnormally dry.

Bathing often provokes an attack, the occasional bath should be tepid and a pound or two of bicarbonate of soda, a bran bag and perhaps a few ounces of an alkaline tar solution may be added with advantage. Friction with a towel must be avoided. Ordinary soaps are harmful in most cases and only a superfatted soap should be permitted. Perhaps the most effective of local antipruritic measures is irradiation with the Roentgen rays in quarter-unit doses once a week when the involved areas are limited in extent, or better still, in my experience, with ultra-violet light in suberythema doses over the entire integument when necessary, two or three times a week. The relief is usually striking and immediate and lasts a day or two. Needless to say the secondary effects of the itching, the eczematization and lichenization of the skin must be removed by appropriate local measures if the cure is to be complete.

When all is said, we must admit that there are a great many cases of pruritus which are absolutely refractory to our efforts, but it is certain that many can be cured and to all we can promise at least some measure of relief.



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THE CIVIC ACTIVITIES OF COUNTY MEDICAL SOCIETIES

The Secretaries' Conference on September 2 revealed a considerable degree of misapprehension concerning the relation between county medical societies and lay organizations engaged in public health (see this JOURNAL, September 15, page 798). The direct question was asked "Has any medical society invited representatives of lay organizations to speak before the society's meeting?" It brought out the fact that very few societies had done so, but on the contrary, there was an undercurrent of feeling that the relation between the medical societies and the lay organizations was not entirely harmonious, and that many medical societies did not wish to be closely allied with lay health organizations.

The editorial pages of this JOURNAL have recently set forth the need of a closer relation between the three groups of public health workers, so that each shall do the work that properly belongs to it. An editorial on "The County Medical Society in Public Health" in the JOURNAL of May 15, page 473, set forth the historical development of the three great groups of organizations engaged in public health—Departments of Health, lay health organizations, and medical societies—and showed how out of the experience and attempts of various plans by the three groups, there had developed a clear conception of a practical way to co-ordinate the activities of the groups into a harmonious trinity with the physician group leading and advising the other two.

The same idea was further developed in an editorial in the July first issue, page 615, which partially outlined the proper fields of work of the three groups of public health workers. The broad principles of the diagnosis of the public health situation have been clearly defined, and are accepted by all the groups, and the next step is to apply them to individual communities.

The Secretaries' Conference showed that the attitude of many doctors is that they consider almost the entire function of a County Medical Society is to carry out scientific programs on curative medicine. But the scope of the activities of organized medicine is much broader.

A modern county medical society has duties along three lines: 1, the personal benefit of its members—mutual protection and sociability; 2, instruction of its members in scientific medicine; and 3, the practice of civic medicine.

The social side of county medical societies is well developed in the form of lunches and of testimonial dinners to the older members. What this means to physicians may be appre-

ciated when there are recalled the public disputes and open antagonisms among doctors a generation or two ago. The meetings of county societies are great promoters of friendships and cooperation among doctors. Several secretaries at the conference said that their best meetings were friendly dinners given their older members. Sociability among doctors is not a form of mere selfish enjoyment, it is a public health measure of which the people receive benefit in the cooperation among physicians and their exchange of ideas.

The instruction of physicians in scientific medicine has always been a major function of county medical societies, and no program is considered complete unless it includes a paper on some phase of the practice of medicine. Instruction in scientific medicine received a great impetus during the past year owing to the courses of lectures and study promoted by the State Society in co-operation with the State Department of Health. The majority of secretaries at the conference approved the courses in pediatrics and obstetrics, for these subjects were practical and the instruction could be put to use in the daily practice of medicine.

Regarding the third function of a county medical society—that of practising civic medicine—there was considerable difference of opinion at the Secretaries' Conference. One secretary said that his society had been "Fed up" with public health to such an extent that the members stayed away from the meeting when the subject was made prominent in the programs. Others said they did not invite public health workers to attend the society meetings. When these misunderstandings and antagonisms exist, it would seem that there was something wrong with the brand of public health that was presented to the doctors, or that the doctors did not recognize the virtue of practicality in the public health work of lay organizations.

Doctors have always insisted that the medical profession should be the advisor of the community in all health matters. But physicians have held themselves aloof from "Practical politics," and have waited for their advice to be asked, before they have expressed an opinion on any community problem. They have felt that the community should seek their advice, and that to offer unsolicited advice to a community was as unethical as to force it upon an individual unasked.

The modern standard of action is that the county medical society represents "the Medical Profession," and that its duty is to give voice to the collective opinions of its individual members. While one individual doctor might seem to be advertising himself when he



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Fifth District—CHARLES D. POST, M D
Sixth District—WILBER G. FISH, M D
Seventh District—CLAUDE C. LYTLE, M D
Eighth District—GEORGE W. COTTIS, M D

Paughkeepsie
Flushing
Greenville
Amsterdam
Syracuse
Ithaca
Geneva
Jamestown

For list of officers of County Medical Societies, see this JOURNAL, advertising page xxvi

PROGRAMS OF MEDICAL SOCIETIES

The programs of the meeting of the State Medical Society and its component societies reflect the newer items of medical progress, especially those phases of medicine which are practiced by family doctors. General practitioners are expected to advise their communities as well as their patients. How they may discharge their civic duties has become a subject of increasing interest, although public health topics have often not been popular in

the programs of county medical societies. Every number of the program of the meeting of the Sixth District Branch was on the subject of public health and civic medicine and specifically consisted largely of reports of the actual practice of civic medicine by the county societies of the District. (See report on page 836.) The attention shown to the speakers was abundant evidence of the interest of physicians in practical phases of public health and civic medicine.

these were the agents by which the new word was carried to the profession all over the country. Officially speaking (U S Civil Service Commission Circular Notice No 50, Assembled, issued January 2, 1924), it "will consist of massage, electrotherapy, hydrotherapy, mechanotherapy, thermotherapy, active, passive, resistive and assistive exercises and remedial gymnastics." Under electrotherapy are, of course, included actinotherapy and radiotherapy.

It naturally followed that the doctor in charge of a physiotherapy clinic should become known as a "physiotherapist." He was a commissioned officer skilled in the subject, usually a Fellow of the American Electrotherapeutic Association, with its quarter century of development in this field. Additional medical officers were trained by him to act as assistants, or to take charge of like departments at other centers, and some still continue as such in Army and Veterans' Bureau hospitals and clinics.

Physiotherapy aides, the official name for non-medical assistants in those hospitals, were obtained, late in 1917, by a coast-to-coast canvas of women's colleges. Over 870 were selected, among 5,000 volunteers from this source, for three months' intensive training courses, however, with dismantling of these hospitals, most of this fine type of personnel have returned to their prewar callings. Physicians employing such assistants at the present day in office or hospital view them as "physiotherapy technicians" (akin to X-ray technician or laboratory technician). The word "technician" is now preferred as more definitely explanatory of the paid employee than that of "aide," the latter being too suggestive of "volunteer" and, therefore, unsuited to civilian practice.

The effective work of these college-bred girls and their good influence on the morale of patients (as may also be said of some of the young men assistants taken from the ranks) having

won high praise for such service, many less worthy imitators have since then tried to capitalize this reputation. Chiropractors and other get-smart-quicks are among the Ishmaelites who would thus benefit—and some few physicians, none the wiser, unfortunately recommend them to patients or even themselves at times employ them.

The provision in the new Medical Practice Act by which laymen are designated as "physiotherapists" is certainly an unfortunate one in that the suffix "ist," in a word applied to illness or injury, has always heretofore signified a medical graduate. Neurologist, otologist, gynecologist, these are familiar examples. Until finally become a specialist in medicine, dentist is perhaps the sole exception to the rule—although its synonym, stomatologist, is invariably a medical practitioner. So that "physiotherapy technician" should have been substituted for "physiotherapist" in that part of the new act.

Quite naturally, some resentment was felt by physicians trained in this field at the bold attempt of laymen to appropriate a title clearly indicating the medical graduate, the State Department of Education, however, will find few if any prospective lay applicants fitted to meet the high educational requirements of the proposed position. The danger from the situation is for the people of other states, those with more liberal (?) laws and more pliant officials, in that enough untrained laymen (with the physiotherapist provision in the New York law serving them as a precedent) may appropriate the title, form one more objectionable cult and obtain state sanction from their "easy" legislators.

It therefore behooves physicians of the State to keep posted on the situation. Further legislation is undoubtedly indicated to control the training of young men and women planning to act as their assistants, in office and hospital, in this rapidly growing branch of our therapeutics.

HEALTH QUESTIONS ASKED BY LAYMEN

The health columns in magazines and daily papers reflect the kind of medical advice which is sought by laymen. Most of the items are replies to questions submitted by persons who are sincerely anxious over medical problems. Will Blank's reducing soap remove fat from my double chin? Is sugarene a safe remedy for diabetes? Is brisk exercise before breakfast good for anyone with a weak heart? These are samples of questions that are put to doctors by anxious inquirers.

What are the doctors' answers to these inquiries? Usually they are plain denials of the efficacy of the suggested therapeutics. But negative replies are not satisfying, and the inquirers seek for some one who will give the

answer that the questioners wish to hear. But why does the dictum of medical authority fail to carry universal conviction? The history of medical discoveries furnishes an important clue to the answer.

The essence of medical progress is a constant questioning of both evidence and conclusions. The great discoveries in medicine have come after hundreds of clues have been tested and found baseless. Surgical asepsis was violently opposed by the leading obstetricians and operators in the early eighties, and leading pediatricians persisted in their opposition to diphtheria antitoxin long after its efficacy was accepted by the majority of physicians. If anyone is seeking for the evidence of disagree-

expresses his private opinion regarding a health subject, he is entirely ethical and praiseworthy when he speaks after he has been authorized to do so by his county society. The machinery for expressing the views of the medical profession is now available and ethical methods of its application are standardized and almost universally accepted by physicians.

Giving opinions concerning the health phases of community topics is the essence of the practice of civic medicine. This practice is much broader than the practice of public health, or the practice of preventive medicine by welfare organizations. It includes advice in such topics as public supplies of milk and water, the disposal of sewage, and the control of communicable diseases, with which departments of health deal, it embraces the subjects of baby welfare, medical school inspection and anti-tuberculosis work which are often monopolized by welfare organizations, it covers the health phases of the subjects of child labor, workmen's compensation and the prevention of automobile accidents, whose control is plainly the responsibility of office holders, it is included in the subject of the health education of the people — what to do in emergencies, how to care for the baby, and the value of vaccines, it is intimately connected with the subject of charity — the building and management of hospitals and the mutual relation between poverty and ill-health.

Some of these subjects are always before the people for discussion and office holders for solution in the territory of every county medical society, and the people expect the doctors—that is, the county medical society — to express their opinion regarding them. But physicians have often permitted the authority to pass to welfare organizations. It is only natural that amateurs in the practice of any branch of medicine should advance impractical plans, and should be impatient with the practitioners of scientific medicine who disapprove of their radical views. Community health problems cry out for solution in every county, and the only group that can solve them is the medical practitioners who know their communities intimately.

Every county society has the opportunity to assert itself in some problem of civic medicine which is prominently before the people. When it expresses its opinion, it is practising civic medicine. The Tioga County Medical Society, for example, is setting an excellent example to the other county societies as it supervises and controls the activities of two public health nurses whose work is principally prenatal and obstetrical.

If each county medical society would take up some civic problem that is occupying the attention of the community, it would fulfill its function in public health and civic medicine, and would gain the support of both the physicians and the people.

PHYSIOTHERAPY, HISTORY AND EXPLANATIONS

WITH signature of the Webb-Loomis Bill by Governor Smith on May 17 the general public of the State were given a Medical Practice Act that, faithfully enforced, safeguards it against the horde of shameless "healers" who for years have fattened on their otherwise unprotected victims. Consequent transfer of prosecution of these criminals from county officials to those of the attorney general's office should give assurance of more continuous aggressive pressure to drive the cultists from the State. Not the least important is the provision for annual reregistration of physicians, one calling for but little effort by the latter, but among the most practical measures for singling out lawless healers in the community. So, too, will action under our profession's control to discipline culprits within its own ranks do much to increase public regard for the ethical doctor everywhere.

But how about that provision for laymen to function as physiotherapists in the newly enacted law? And why should insertion of this eleventh hour amendment have aroused such determined objection by medical practitioners specially

trained in use of the newer physical treatment methods? The feeling aroused was unmistakable that someone had blundered in letting this unwarranted provision creep in. To grasp the meaning of it all, physicians should clearly understand exactly what is included under those new terms, physiotherapy and physiotherapist.

When did "Physiotherapy" originate and how shall we define it? Widespread addition of these newer physical remedies to surgery, pharmacals, and other treatment facilities followed their extensive use in army hospitals of the recent war. When planning these large hospitals, army authorities, acting on suggestion of those in the American Electrotherapeutic Association, took heed of the good results achieved abroad, and then installed much new equipment for the purpose. A comprehensive, euphonious term for these methods was lacking so that, after due study, "physiotherapy" was the word then coined. The Navy, the Public Health Service and especially the Veterans' Bureau (the latter now the most extensive employer of these physical methods and its trained medical and lay personnel)—

these were the agents by which the new word was carried to the profession all over the country. Officially speaking (U S Civil Service Commission Circular Notice No 50, Assembled, issued January 2, 1924), it "will consist of massage, electrotherapy, hydrotherapy, mechanotherapy, thermotherapy, active, passive, resistive and assistive exercises and remedial gymnastics." Under electrotherapy are, of course, included actinotherapy and radiotherapy.

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ment over essential facts in medicine, he can find it in the rejection of every medical discovery by some prominent doctors

Physicians, like sick people, are prone to believe and to try every new thing that appears to be a short cut to success, and also to reject those which require high skill and knowledge in their application. The promoters of visionary remedies and sure health restorers are found among both physicians and laymen

This is an age of questioning authority in every line of human thought, and fame or notoriety comes from the most unpromising

sources. Whatever is talked about will be accepted as truth by a sufficient number of persons to enable its promoters to capitalize the idea regardless of its truth or falsity. What matters it to the promoters that ninety-nine per cent of the people condemn their schemes provided one per cent support them with their dollars? One per cent of the people of the United States makes 1,100,000 persons—a tremendously big number, yet only a small per cent of the total population

Doctors need not be pessimistic over the quack situation, for ninety-nine per cent of the people give them their faith and confidence

LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

President William McKinley was shot about 3 45 o'clock on September 6, 1901, through the stomach and pancreas, while he was attending the Pan-American Exposition in Buffalo. An operation was performed about six o'clock. Death occurred on September 14

A prominent physician has recently stated his experience at the time of the shooting as follows:

"I saw the President drive into the grounds of the International Fair at 3 30 o'clock, stood in a tower from which I could see and hear the President give an outdoor address, and see him drive to the Temple of Music. At about four o'clock, as I sat in front of the Machinery Building, I watched an ambulance from the Emergency Hospital stop in front of the Temple of Music and saw a man carried out on a stretcher. Almost immediately I heard a report that the ambulance contained the President who had been shot, and I at once joined a riotous crowd that quickly gathered around a carriage which carried the assassin, intent on lynching him. I must confess that I, too, was carried away by the excitement and hate as I grasped the wheels of the carriage and struggled to get at the prisoner."

"Later I was shown the revolver with which the assailant did the shooting. It was an Iver Johnson 32 calibre, number 463344. One chamber was empty and the hammer was down."

"The President was nursed by women nurses assisted by four members of the Army Hospital Corps. The physicians in attendance made the mistake of being too optimistic. The abdominal operation was a success so far as the stomach was concerned, but at the autopsy the pancreas was found necrotic."

This Journal for October, 1901, had an editorial comment on medical publicity regarding the case

"We have cause for a deeper regret than others because the incident which at first promised to unfold to a wondering world the marvelous advances in surgical skill since Garfield's time has instead distinctly tended to lessen the respect of the public for our whole profession. It was not any lack of surgical skill that we have to deplore, for so far as we can see nothing was done or left undone that was not based on good judgment of all knowable conditions. It was not the issue of bulletins of too optimistic a tone, for it was a public duty at such a time to offer every possible encouragement. We give all praise to the operator who did all that human skill could do to save his distinguished patient. He would have received our felicitations had the outcome been happier as he now has our sympathy."

"To what, then, is due the grave public disapproval seen in every country newspaper? Though our colleagues did not show any lack of surgical skill, they exemplified one of the great evils of divided responsibility—they talked too much."

"This same tendency to talk too much has been evident far beyond the circle of the president's advisors. We have nothing but praise for the surgeons who testify publicly to the unquestioned surgical skill of the men under fire and urge us to assume till we have evidence of the contrary that this same skill was exercised in the case of our president. But what can we say of the men who if not distinguished themselves are at least the assistants of distinguished men, who from a distance of 500 or 1,000 miles offer criticisms in the public press? We suppose they hope to extend their local reputation, but we regret the fact that in our profession more than in any other are so many men whose education has not extended to the point of differentiating fame from notoriety."



MEDICAL PROGRESS



Glottic Spasm in the Adult—Spasm of the laryngeal muscles which, owing to the greater power of the adductors, results in a more or less complete closure of the glottis, is not of very frequent occurrence in the adult, but when it does exceptionally occur is most alarming to the patient and those about him. An attack begins usually with a sense of tickling in the throat followed by coughing and then closure of the glottis, impeding or wholly arresting inspiration though not interfering with expiration. Harold Barwell, writing on the treatment of this condition in *The Lancet* of July 3, says that, however alarming an attack may be, it is not dangerous except when due to tabes or thoracic aneurysm, or some other serious disease. Instant relief is often obtained by the inhalation of 5 minims of amyl nitrite or of a mixture of 10 minims of chloroform, 5 minims of ethyl iodide, and $\frac{1}{2}$ grain of menthol, these being enclosed in breakable glass capsules. A hot sponge applied over the larynx may also be of service. In the subacute attacks, in which the closure of the glottis is less complete but in which the distress may last several hours, the spasm may be broken by an emetic dose of ipecac—30 grains of the powdered root or 20 grains with half a grain of tartar emetic. In these persistent cases relief may also be given by a dose of 15 or 20 grains of chloral. In the preventive treatment between the attacks search should be made for any exciting cause, such as chronic pharyngitis or laryngitis, indigestion, overindulgence in tobacco or alcohol. In some patients a spasm is often brought on by drinking cold fluids. Little by way of prevention can be looked for from drugs, though a course of 10 grains of sodium bromide with 6 minims of tincture of nux vomica in some suitable menstrum, three times a day, may be helpful. In cases of aneurysm of the aorta or mediastinal tumor the attacks will recur almost inevitably despite attempts at prevention and hysterical cases usually show an obstinate tendency to recurrence. The tabetic attacks can usually be aborted by prompt inhalation of amyl nitrite.

Potassium Permanganate in Pneumonia—Herbert W. Nott reports in the *British Medical Journal* of July 17, 1926, a number of cases of pneumonia occurring in the practice of several physicians in which a rapid recovery followed rectal injections of potassium permanganate. The solution is made by adding 2 grains of pure permanganate to $1\frac{1}{2}$ pints of comfortably hot water, from 3 to 8 ounces being given by

enema every $2\frac{1}{2}$ to 4 hours. The injections should be given very slowly and should be repeated at short intervals if the bowel does not retain them long, or in case the treatment is begun after the disease is well established. Once the temperature reaches normal in adults and older children the injections are reduced to two a day for three days and then one a day for another three days. Most cases do not require hypnotics but cardiac tonics and stimulants may be called for, especially in septic cases. The changes seen in the clinical picture, under this treatment, are rapid and striking. "After the first or second injection the character of the cough alters from a harsh hawking bark to an easier and softer sound, the respirations become deeper and a little slower, with reduction in pleuritic pain in consequence. After the second or third injection the sticky expectoration becomes much looser and more easily raised. The grey or dusky type of cyanosis disappears in eighteen to thirty hours, being often replaced by a rosy complexion in children, whilst in adults the pneumonia facies gives way to an expression of ease. Sleeplessness, if it has been a predominant symptom, ceases. After the very first injection a child with advanced bronchopneumonia will fall soundly asleep, and can be kept sleeping by repeatedly giving small injections. Reduction of active and noisy delirium is noticed after a few injections, the patient becomes quiet and is more readily controlled after three or four doses have been well retained. But the most dramatic change of all is the sudden ceasing of the colored sputum. It is not uncommon to see a bright red sputum in the morning and to find white frothy expectoration in the evening of the same day."

Acrodynia and Its Cure—A. E. Vipond, writing in the *British Journal of Children's Diseases* for June, 1926, expresses disagreement with the prevalent opinion that acrodynia is a new disease or a resurrection of an old one. He thinks that cases have occurred with more or less regularity but without attracting particular notice until a keen observer like Bilderback came into the field of research. The symptoms and course of the disease, briefly summarized, are as follows. The initial symptoms are those of a nasal catarrh, but the child soon becomes more irritable than such a condition would justify. Following this is an erythematous or papulopustular eruption accompanied by cold sweating. Next observed is a pitiable condition of the extremities, the hands

and feet are cold and bluish-red in color due to the extremely sluggish circulation in the contracted arterioles and in the venules of the parts, the same condition appears on the tip of the nose, the edges of the ears, and the eyelids. There is intense pain in the affected parts, and a pseudoparalysis is noted in the lower extremities, so that the little sufferer is no longer able to stand or walk. The superficial nodes, especially in the axillae and groins, are enlarged. There is a rapid loss of weight, conjunctival irritation is marked, the reflexes are difficult to obtain, the urine is scanty. Untreated the disease lasts from 4 to 6 months. The age of the patients is between 8 and 18 months.

The disease is a toxemia of the central nervous system due to the presence of a specific microorganism, a small Gram-positive diplococcus, obtained by Vipond in cultures made from lymph removed under aseptic precautions from an enlarged inguinal node. A vaccine was made from this diplococcus and was employed with most satisfactory results in a number of cases. The initial dose is 1 cc containing 500,000,000 diplococci, and the vaccine is continued in increasing doses up to 3 to 5 cc. The author looks with confidence to a cure in about three weeks.

Treatment of Persistent Hiccup—C. F. T. East, writing in *The Lancet* of July 17, 1926, defines hiccup as due to a spasmodic contraction of the diaphragm causing an abrupt inspiration which is cut short by a sudden closure of the glottis. In the milder cases a cure can often be obtained by anything that takes the attention of the patient away from the expected hiccup, such as drinking from the farther side of the glass, holding the arms above the head and other "stunts." Pressure by the hand on the epigastrium or maintaining a posture with the knees drawn up and the thighs flexed on the abdomen may suffice in simple cases. In other cases pressure on the eyeballs or the supra-orbital nerves or a blister raised in the sensory area of the 3d and 4th cervical nerves at the root of the neck just above the clavicle, may arrest the spasms. Steady traction on the tongue for one or two minutes or a mustard plaster over the epigastrium may be useful. When basal pleurisy presumably causes the hiccups, tight strapping around the lower ribs, applied during expiration, has given excellent results. When the origin of the trouble is in the stomach carminatives are useful—a dram of spirit of chloroform, a teaspoonful of sal volatile in a little water, 5 minims of camphor in milk or on a lump of sugar, 5 to 10 minims of tincture of capsicum in water. In toxic conditions it may not be possible to combat the cause rapidly, and then we must treat the spasms

empirically. The following remedies have proved useful: Atropine hypodermically, gr 1/100 repeated in four hours if necessary; or tincture of belladonna, 10 minims every 4 hours. Benzyl benzoate in 20 per cent alcoholic solution, of which 20 minims in milk every two hours. Sedatives are sometimes necessary—hyoscine, chloral, the bromides, morphine, or Hoffmann's anodyne, a teaspoonful in iced water. An emetic may bring relief in an obstinate case. Nitroglycerin, 1/100 grain every 4 hours, or a sniff of amyl nitrite may arrest the spasm. Finally it may be necessary as a last resort to consider the injection of novocaine into the phrenic nerve at the root of the neck, both nerves must not be treated in this way on the same day. Among all these remedies some one should be found to give relief, and if one fails another must be tried.

Intraspinal Autoserotherapy in Epidemic Encephalitis—H. Pette relates his experience in Nonne's service for nervous maladies in the Hamburg-Eppendorf hospital. The number of patients submitted to this treatment was 23. It is not claimed that any revolutionary discovery has been made and while this particular form of treatment does not seem to have been applied before, convalescent serum from other patients has been tested as well as other kinds of serotherapy in intraspinal injection. From the fact that none of this series of patients succumbed to the disease it is evident that the treatment in question was not directed to the disease in its active phase, but rather to its troublesome sequelæ and especially the parkinsonian symptoms. The serum was taken from the patient's blood to the extent of 30 cc, tested for germ life, and inactivated, after which 10 cc was injected into the spinal canal. Despite the homogeneous source of the serum and the precautions taken, there seems to have been constantly present a considerable systemic reaction of general malaise, headache, and stiff neck with at times vomiting—in other words a distinct meningeal reaction. In a few cases only there was a febrile reaction to 39° C (103° F), although mostly the rise was only slight. The patients were taken as they came without any attempt at selection. In all 45 injections were given, averaging about 2 to a patient. The interval between two injections was long—from 3 to 6 weeks. The benefit was not apparent until after 6 or 7 days, and was then both subjective and objective. The author could see no evidence of anything specific in the treatment nor was there any remote effect on the duration of the disease. After a certain interval there was no further benefit to be seen, so that the transitory improvement could have been due in part to suggestion. In but one case was the result brilliant and the

gain in this patient has been maintained—*Muenchener medizinische Wochenschrift*, June 18, 1926

Isolated Gonorrheal Balanoposthitis—A Werner relates the case of a young man of 25 who appeared before him with an irreducible balanoposthitis. The first symptoms had appeared five days before and the irreducibility had persisted for two days. The use of the two-glass test of the urine excluded urethral discharge. The retention of much pus in the preputial sac was evident and some fever was present. Palpation and the microscope apparently excluded any kind of venereal ulcer, and the latter resource revealed the presence of gonococci. As attempts to treat the preputial sac without incision did not favorably affect the local symptoms or the fever, the author performed phimotomy with the result of a temporary fall of temperature. The fever reappeared, however, three days after the operation and was apparently due to double inguinal gonorrheal bubo. Five days of bed rest brought down the temperature, but an abscess formed in the region of the symphysis, the pus of which contained gonococci. Despite the successful evacuation and drainage the fever did not subside and later a specific tenovaginitis developed in the forearms, another abscess forming in the lower third of the extensor surface of the right forearm. Permanent deferescence followed incision and drainage of this abscess. The case is puzzling for the histological structure of the balanopreputial fold and adjacent membrane agrees fully with that of the skin and septic absorption from the latter, if at all intact, is not believed to occur. It absorption did not occur from the preputial sac the author suggests that it must have taken place through the paraurethral ducts and in sufficient virulence to infect both the blood and lymph streams—*Deutsche medizinische Wochenschrift*, June 18, 1926

Hypodermoclysis—Weller Van Hook, commenting on the recognized utility of the parenteral introduction of fluids into the body, cautions against the rapid injection of large quantities of fluid except in a great emergency. He protests against the violent disruption of the loose subcutaneous tissues by the sudden introduction of distending amounts of saline solution, for it serves no useful purpose to inject any fluid faster than it can be absorbed. He protests also against the thrusting of large needles, a millimeter or more in diameter, into the skin without first producing local anesthesia. All this is preliminary, he says, to the recommendation of a gentle and efficacious procedure which he has found most satisfactory in cases in which no great haste is called for, as when not more than two or three quarts

must be injected in the twenty-four hours. To a reservoir in which the fluid is kept warm by an electric light bulb, a tube is attached having a Y-joint at its lower extremity, from this extend two short tubes armed with gauge 18 hypodermic needles which are inserted, one under each breast, after previous anesthetization with novocaine. Each of these needles will deliver 50 cc per hour, or 1200 cc per day, the two therefore passing between 2 and 3 quarts of fluid every twenty-four hours—a fully sufficient quantity in most cases. The tube leaving the reservoir is interrupted by a drop-regulating mechanism, such as the procotolysis drip bulb—*Boston Medical and Surgical Journal*, July 29, 1926

Self-Stupefaction and Self-Destruction—This subject is discussed by E. Joël in the *Deutsche medizinische Wochenschrift*, of June 25, 1925. He first takes up narcotic addiction. Every act of stupefaction from drugs is an act of slow suicide. The author is not moralizing, but means simply that the flight from reality is the same, even if in one case it is temporary. The man who seeks temporary respite may one day choose to make it permanent. If a permanent addiction with constantly increasing dose and constantly diminishing euphoria results we may also speak of suicide. These persons may be likened in a way to ascetics and martyrs who also seek death. During the late war hundreds of thousands of human beings were tormented by anxiety, insomnia, actual pain from injuries, and extreme mental depression, and gradually learned for the first time of the existence and properties of numerous drugs, including actual poisons. The degree of knowledge thus acquired was such as to astonish the medical practitioner. Two examples are given. A man of 28, out of work, was the son of two suicides, the father having shot himself while the mother cut her wrist arteries and drank lysol. There were two other suicides in the mother's family. The patient himself had been a drunkard and had made two attempts at suicide and a brother had made six such attempts, and had also abused coffee and tobacco (50 cigarettes daily) while he resorted at times to veronal and luminal. A sister made two attempts at suicide with illuminating gas. A second patient had made two attempts at suicide with gas and was badly addicted to tobacco and coffee, with amblyopia *ex abusu*. His father is an alcoholic. Such cases are not exceptional but ordinary. The author recalls that Magnan regarded dipsomania as a suicide equivalent while Gaupp proved that addiction to alcohol, morphine, and cocaine often leads up to actual suicide.

Treatment of Hyperidrosis—H. Schmeidler refers to the extreme resistance to treatment of this affection. The phenomenon occurs under the most opposed conditions as in tuberculosis, obesity, pneumonia, and trichinosis. There are also localized forms, notably in the hands, feet, and axillæ, which may be complicated further by bromidrosis and by eczema. The view that these sweats are designed for the elimination of toxins and should not be suppressed has no foundation in fact, and while it is not desired to dry up the skin completely, arrest of the excess of perspiration always has salutary results. The best local application is formaldehyde which is a true specific in that it checks the excess of perspiration and neutralizes the irritating ammonium carbonate which forms in the decomposition of the fluid. The author does not mention the concentration used by him. If the skin is broken formaldehyde would cause smarting and he would substitute a mixture of powdered salicylic acid and starch. He recommends especially a remedy composed of several synergists, which contains alcohol, starch, zinc oxide, the ester of methyl salicylate, and formaldehyde, made up in ointment form. It has been found of value both by the author and Max Joseph and a case is cited in which it proved of inestimable service in drying up the sweating hands of a dentist who had gone unrelieved for many years.—*Deutsche medizinische Wochenschrift*, June 18, 1926

Mercurial Poisoning from Dental Fillings—F. Flury refers to an article recently published by a well known chemist in which he relates the experience of himself and collaborators in a form of intoxication from exposure to mercury fumes in ordinary laboratory activities. Incidentally he touches on the possibility of poisoning from fillings of mercury amalgam. The subject is an ancient one, going back a century or more. The first metal to be accused in this respect was, however, silver in the form of amalgam (in 1846), although study of the cases makes it probable that mercury was the metal at fault at least in some of the cases. In alleged poisoning from copper amalgam, published many years afterwards, mercury is recognizable as the toxic substance. Doubtless in these cases we must reckon on the presence of an idiosyncrasy to mercury. Stock, the chemist to whom Flury refers, points out that mercury amalgam may cause an insidious form of poisoning, which is readily overlooked. The symptoms show much variability, the majority

being nervous and mental, as prostration, irritability, headache, vertigo, etc. Others affect the digestive tract, as stomatitis, anorexia, and diarrhea, and still others the respiratory tract, as nasal catarrh. Stock's paper roused great interest among dentists and the general public, for literally millions of the people carry these fillings in their mouths. That any considerable number of these have ever been poisoned by the mercury seems incredible except through two possibilities, namely personal idiosyncrasy to mercury and the use of an improper amalgam. Many dentists assert that such a case has never come before them even as suspicious. The mechanism would doubtless involve the volatilization of the metal of the filling and subsequent inhalation. Stock promises to write a second paper on the subject with further data.—*Muenchner medizinische Wochenschrift*, June 18, 1926

Absolute or Relative Count in the Valuation of the Leucocyte Blood Picture—Professor Victor Schilling sums up a serial article, concluded in the *Deutsche medizinische Wochenschrift*, of June 18, 1926, as follows. Moschkowski in his critique blames certain defects of the relative determination of the leucocytes but omits to mention that the deliberate rejection of absolute curves for practical purposes promotes the valuation of the blood picture for diagnosis which has been made possible in wide circles. He gives an absolute method of his own which seems to us quite unfeasible for the demands of practice and recommends this method in pointing out certain alleged defects of our own technique (errors in the nuclear index employed in various scales), which do not exist at all or exist as a result of apparently scientific heresy (monocytosis of the protozoan diseases), which show themselves according to absolute figures as correct. Finally Moschkowski omits, on his part, to demonstrate practical results with his new methods, which are equal to those obtained by the Schilling method by Dornedden, Dungal and a dozen others. We reject the critique of Moschkowski directed against the relative leucocyte method as entirely incorrect. The precision of Moschkowski's labors can therefore not delude us as to their impracticability and only partial justification. Every objective critique must recognize the superior advantages of the relative count even in admitting the existence of sources of error, its greater constancy, its clinical lucidity and the simplicity of the demonstration.



NEWS NOTES



THE SIXTH DISTRICT BRANCH

The first of the District Branches to hold a meeting this fall was the Sixth, whose meeting was held on September 21st in the Country Club at Owego, with the president, Dr Wilber G Fish, of Ithaca, presiding, and the Secretary, Dr Hubert B Marvin, of Binghamton, recording

The attendance was 59 members out of a total membership of 446 in the ten component county societies. The percentage of attendance was 13, which is large. In addition 27 physicians were present as guests. The Sixth District Branch has always been noted for its large attendance.

The members at the meeting were the guests of the Tioga County Medical Society of which Dr E S Peck of Owego is president. The County Society provided a buffet lunch at noon, and entertainment and afternoon tea for the ladies. The day was perfect, and the broad verandas of the club house afforded the opportunity for visitations among the doctors.

The program was practical and the speakers held the attention of the audience. Emphasis was placed on public health, and four counties presented reports of their practice of civic medicine along original lines.

The first number on the program was a report on "The antidiphtheritic campaign in Chemung County," by Dr Reeve B Howland, Health Officer of Elmira. He and Dr John A Conway, District State Health Officer, described the immunization of nearly 2,000 school children in Elmira and some of the surrounding districts, and contrasted the low rate of incidence of diphtheria in the immunized communities with that in the places in which immunization had not been done. They also told of some rare cases of opposition by health officers and school medical inspectors.

An animated discussion followed the paper, in which the physicians who spoke praised the work of the health officers. While few doctors reported having done the immunizations in their private practice, the consensus of opinion was that they should be done to all the children in the families in the care of a physician.

On motion of Dr Howland, the Sixth District Branch unanimously approved the antidiphtheria campaign conducted by the Medical Society of the State of New York, and recommended that the County Medical Societies and the family physicians take part in doing the immunizations, in both public and private practice.

The reconstruction work on polio cases done in Tompkins County was described by Dr C D Reed, Orthopedist of the State Department of Health. The cases of Tompkins County received care in the Reconstruction Home in Ithaca. This is a striking example of the practice of civic medicine by a lay organization directed by medical men.

"The Tioga County experiment in pre-natal care" was described by Dr Guy A Carpenter of Waverly. The work was begun in January, 1925, when two nurses were sent to Tioga County by the State Department of Health. The County Medical Society had considered the matter in December, 1924, and had agreed to direct the nurses' work through a committee composed of physicians. The nurses are paid by the State Department of Health, but their work is directed entirely by the doctors' committee. They do pre-natal and obstetrical work under the direction of physicians. They visit pregnant women, take their blood pressures and analyze their urines, and advise them regarding the danger signs of which they may expect. They also assist the doctors in the confinements and visit the mothers and babies afterward.

In 1925, Tioga County had 375 obstetrical cases of which 245 were seen by the nurses. Each case was visited 15 times on an average.

The doctors of the county were almost unanimous in favor of the public health nurses. There was no question regarding the great benefit to the mothers and babies. The point was made that from a selfish standpoint doctors favored the work because it relieved them of much care and responsibility for the cases.

The work also reacted on both the people and the doctors. The people now realize the importance of pre-natal care, see the safety and comfort of hygienic deliveries, and seek the help of the doctors more than ever before.

The future of the demonstration was also discussed, and the point was raised whether or not it was right to accept help from the State Department of Health and from the National Government through the Sheppard-Towner funds. The issue of State Medicine was also raised but was not emphasized in view of the demonstrated popularity of the work with the physicians, the mothers and the community. The opinion of the speakers seemed to be that the work should be continued by the county government, and would be if the people and the doctor so demand.

The discussion of the pre-natal work in Tioga County was snappy and broad and covered every phase of the work within a half hour. All the speakers agreed that the doctors of Tioga County had shown how they could successfully direct and control public health work which had usually been done by lay organizations.

The Steuben County experiment in Breast Feeding, was described in a paper by Dr Charles R Wakeman, District State Health Officer, which was read and amplified by Dr John A Conway. A preliminary report of this work is contained in an article by Dr Wakeman, entitled "Hornell Breast Feeding Demonstration," printed on page 831 of the July, 1925, issue of this Journal. This work consisted in following up the babies during their first year of life. The results of the work were that a very unusually large proportion of mothers nursed their babies, and that while the incidence of diarrhea and death among the breast fed babies was practically nothing, there were ten deaths among bottle-fed babies in a single outbreak.

The breast feeding demonstration was another example of public health work originated and demonstrated by doctors.

"The Educational Program for the Control of Cancer" was described by Dr La Rue Colegrove of Elmira.

The most striking number on the program was that on "Pre-natal care and Child Welfare in Soviet Russia," by Dr Stuart B Blakely of Binghamton. Dr Blakely had gone to Russia in 1925 in order to study the treatment of eclampsia as exemplified by Dr Stroganoff

of Moscow, who has had an extensive experience in that disease. Dr Stroganoff has a mortality rate of only two or three per cent which is much lower than anywhere else. His method consists in non-operation and non-interference with the pregnancy, the enforcement of absolute quiet and rest and the administration of morphine and chloral as sedatives. Dr Blakely also discussed the baby-saving work in Soviet Russia, and showed lantern slides of an extensive series of educational posters of which millions of copies were distributed in order to teach the ignorant peasants how to care for their babies. The posters were works of art, and exemplified their points with far more force and directness than similar ones in America. They were bold and were unrestrained by social customs, as in America. One cartoon, for example, showed a baby in its chair sucking a milk bottle while a cow stretches out her neck and says with a quizzical look "Why do you drink my milk? Don't your mother give you her own breast?"

Another poster shows the views of the female organs of generation, and has the caption "The emptied uterus is an open wound which may take up blood poisoning."

Dr Blakely plans to send the posters for reproduction in this Journal.

The officers of the Sixth District Branch are to be congratulated on arranging a public health program that excited the interest and admiration of the members. The County Medical Societies are also to be congratulated for having carried on public health work and civic activities which received the cooperation of general practitioners of medicine.

THE THIRD DISTRICT BRANCH

The Twentieth Annual meeting of the Third District Branch of the Medical Society of the State of New York was held on September 25 in Albany, in the Harmanus Bleeker Library, two blocks west of the Capitol. The President, Dr Charles P McCabe, of Greenville, presided, and the Secretary, Dr Clarke G Rossman, of Hudson, recorded.

There were 50 members of the District Branch present out of a total membership of 529—a percentage of 9 attending the meeting. The attendance of members by counties was as follows:

Albany	36
Schoharie	5
Columbia	3
Greene	2
Rensselaer	2
Ulster	2
Sullivan	0

In addition there were 20 guests present, including six members of the official staff of the Medical Society of the State of New York.

A morning session was begun at 10 o'clock. The members were guests of the Medical Society of the County of Albany at a luncheon in the Fort Orange Club. A business session was held at 2 o'clock and was followed by a general session which adjourned at 4 10 o'clock.

The ladies were entertained at luncheon at the Albany Country Club by the wives of the members of the Albany County Medical Society.

Many of the members remained in order to attend the annual clambake of the Albany County Medical Society at McKown's Grove.

At the business session, the following officers were elected to take office at the close of the Annual Meeting of the State Society.

President, Dr E A Vander Veer, Albany
First Vice President, Dr Herbert A Odell,
Sharon Springs

Second Vice President, Dr Clark A Rossman,
Hudson

Secretary, Dr William M Rapp, Catskill
Treasurer, Dr Ernest E Billings, Kingston

The following program was carried out
Address of Welcome, by William P Howard
M D, President, Albany County Medical Society
President's Address, by Charles P McCabe,
M D, resident of the Third District Branch

Paper, "Post-Graduate Education," by Henry
J Noerling, M D, President of Columbia County
Medical Society

Address, "Periodic Health Examinations," by
Haven Emerson, M D, illustrated with the moving-picture film on "How to Make an Examination"

Address, "Medical Legislation," by Henry L
K. Shaw, M D, Chairman of the Legislative
Committee of the Medical Society of the State
of New York

Address, "The Accomplishments of the Medical
Society of the State of New York," by Dr
George M Fisher, President

Address, "The Importance of the County
Medical Society," by Dr James E Sadlier, President-elect,
Medical Society of the State of New York

Address, "The Business Organization of the
State Medical Society," by Dr Daniel S Dougherty,
Secretary

Address, "The Function of the District
Branch," by Dr J S Lawrence, Executive Officer,
Medical Society of the State of New York

Address, "The New York State Journal of
Medicine," by Dr O S Wightman, Editor-in-Chief

Address, "New Problems in the Private Practice
of Medicine," by Dr William A Howe, New
York State Department of Education

All the subjects on the program concerned the
practice of public health and civic medicine, and
dealt with the doctor's public duties in contrast
with his private duties in treating sick individuals

Dr Wightman, speaking of news, said that
several complaints had already been referred to
the Grievance Committee, and that two convictions
for malpractice under the amended law had
already been secured by the Attorney General,
showing that the law is already in operation

Dr Fisher, after reviewing what the State
Medical Society had done in the past, referred to
the demand of the public for more medical
knowledge which must come from the doctors.
'No longer must the doctors remain passive,'
said he, "they must lead in health education"

Dr Sadlier said that the County Medical

Society was the foundation on which the medical
profession rests. He spoke of the lack of co-
ordination among doctors in the past, and referred
to epidemics which ran on for months because the
doctors did not unite in their suppression. In
contrast with the former discord, he described
the installation of a filter system for the water of
the city of Poughkeepsie, through the efforts of a
committee from the County Medical Society. This
is the kind of work which Dr Sadlier considered
should be done by County Medical
Societies

Dr Sadlier also referred to the increased
efficiency of medical service to rural communities,
and he considered that the migration of doctors
from rural places to the larger centers of population
had its recompenses to the people in the
greater skill coming to the doctors as the result of
their closer association. He also cited as evidence
of better medical service the growth of hospital
beds in Dutchess and Putnam counties from 90
in 1912, to 600 in 1926 and all of them now filled

Dr Sadlier, in closing, advocated an active
committee on public health in every county, which
should promote the practice of public health
measures by physicians, such as the immunization
of their child patients with toxin-antitoxin as a
preventive against diphtheria

The function of the District Branch was dis-
cussed by Dr Lawrence and others. It was the
consensus of opinion of the speakers that it was
not the function of the District Branch to confine
its activities to holding a meeting once a year
with a scientific program modelled after the sec-
tion meetings of the State Society. The District
Branch should be the stimulator of its component
county societies, and its officers and committees
should be prepared to help them. The program of
the meetings of the District Branches might well
include a discussion of the problems of the county
societies

Many members commented, both publicly and
privately, on Dr Noerling's address on "Post
Graduate Education," and the meeting voted to
request Dr Noerling to arrange its publication in
the State Journal

A pleasing feature of the meeting was an in-
formal talk by Dr F C Curtis of Albany, a
former president and secretary of the State Medi-
cal Society. Dr Curtis said that he had joined
the Albany County Medical Society in 1872, and
ever since he had made it a point to attend its
meetings regularly. He considered the County
Society the most important of all medical or-
ganizations, for it was composed of physicians
who make the first contact with the people. They
come into close contact with all that enters into
living. They gain new vitality as they appropri-
ate the ideas of their brother doctors, all of whom
work under the same conditions

REGISTRATION OF PHYSICIANS

By AUGUSTUS S DOWNING, ASSISTANT COMMISSIONER OF EDUCATION

There were approximately 17,500 registration cards mailed on the 8th of September. Effort was made to reach every practicing physician in the State but any physician who was overlooked may obtain a card by writing this office. Up to September 22, something over 5,000 applications have been received. They are coming in by every mail and quite rapidly.

Some mistakes, omissions, and questions have come up. The great majority of the cards are properly filled out and raise no question. There are, however, a few questions that have come up to which the attention of the profession might be called.

(1) Many of the practitioners who began practice prior to the time it was necessary to secure a license from this Department wonder, quite naturally, how they shall fill in the line calling for number and date of license. The answer is that such a practitioner should write in this space the name of the institution from which he graduated and the year. This we have found is the information we would like these practitioners to furnish us. There is another space on the card in which the applicant is to write the name of the county in which his license was originally recorded. Knowing this county and the college from which he graduated and the date, we can check the records of the older practitioners of this kind.

(2) If a practitioner has his residence in one place and his office in another, even if they are in two different localities, it is not necessary for him to file two applications for registration, that is to say one from each address. Every physician is required to file but one application, for the reason that the certificate issued as a result of such application validates his practice for the year for which it is issued in any part of the state.

(3) The law requires that the application be made under oath and that the fee of \$2.00 shall accompany the application. Quite a number of applications have come in without the oath and more without the fee. If every applicant is

careful to make the affidavit and inclose the fee, it will help the Department and expedite matters considerably.

(4) A number of physicians who are residing for a time outside of the State of New York have inquired whether they lose the right to practice in this State if they do not register. Since no physician may practice in the State of New York who has not registered with this Department, these out-state physicians do lose temporarily the right to practice within the State, but by reason of the fact that they hold New York State licenses, they may resume practice in the State of New York at any time by registering with this Department.

(5) Some physicians say they are not practicing and do not wish to register, but they do wish to be known among the practicing physicians of the State. The list of physicians which this Department will publish after the registration will be a list only of those who have registered, and the list will not contain the names of those who did not register because they were not obliged to do so.

(6) Physicians should bear in mind that it is in violation of the law to practice medicine without registering with this Department. The Commission of a single act may constitute the practice of medicine, and every physician who expects to be in the State of New York for even so little as one day during the year 1927 and who may on that one day do something which constitutes the practice of medicine, should make application for registration.

(7) All physicians should send in their application cards immediately. All of these application cards must be checked and the list of practicing physicians prepared. The proper compilation of such a list and its printing is no small task, and unless the Department receives the fullest cooperation from the physicians of the State, the publication of the list may be delayed and the advantages of an early distribution of this list among the profession be impaired.

OTSEGO COUNTY MEDICAL SOCIETY

A meeting of the Otsego County Medical Society was held on September 14, with seventeen members present, out of a total membership of forty-two. A business session was held at which the establishment of a pathological laboratory in Oneonta was discussed. Steps were taken to bring the matter before the proper authorities.

Dr Samuel Tirman, of Brooklyn, gave an

interesting clinical lecture on the common forms of heart diseases. Several cases were presented for examination.

The consensus of opinion of the members was that the county society should have another series of lectures on pediatrics next spring if they can be arranged.

Dr Herbert C Hageman was elected to membership.



THE DAILY PRESS



IS NOISE HARMFUL TO HEALTH

A health officer is likely to say it is not, until he is kept awake all night by the honking of automobile horns. A person does not have to be "nervous" to be injured by a strident noise—the noise itself is a sufficient cause of mental suffering, which is as real and intense as that of a tooth-ache or appendicitis.

This topic is editorially discussed in the New York *Herald-Tribune* of September 7.

"The ordinary horn or klaxon used in moderation assaults the ear sufficiently. The hubbub is scarcely less if the siren is barred, as in Paris, and the tooting is limited to the old-fashioned bulb horns. There is sufficient wear and tear on the nerves from these piercing notes. The Paris Prefect of Police has just appointed a committee to select an auto horn less shrill than the city has endured, he has decreed, moreover, that promiscuous honking must cease. Many American visitors have found the incessant tooting of

the Paris taxicabs as irritating as the varied noise-making devices of automobiles in New York. The psychology of this type of necessary disturbance has not been thoroughly explored."

"The state motor vehicle law prescribes 'a suitable and adequate horn or other device for signaling, which horn or device shall produce a sound sufficiently loud to serve as a danger warning, but shall not be used other than as a reasonable warning nor be unnecessarily loud and harsh.' It appears, therefore, to be within police power to keep the racket in tolerable bounds. When the uniform motor legislation so much desired is worked out it should include, perhaps, for all cities the requirement of a standard warning signal distinct enough to arrest attention without setting every nerve on edge. Meanwhile, the collaring of some of the most gratuitous noise-makers might be helpful."

THE IMMORTALITY OF THE BODY

In what does immortality of the body consist? It does not lie in a persistent activity of the majority of its individual particles, for life is dependent upon a continued oxidation and replacement of their matter, although some parts, such as the enamel of the teeth, undergo little or no change after they are formed. It is not in the continued identity of the cells, for new ones are formed and old ones discarded every day, especially from the surface of the skin. Immortality consists in a continued identity of living characteristics, even when none of the original particles or cells remain.

The theory of cell division requires the assumption of a continuous stream of life reaching backward through an interminable line of dividing cells until the original primordial cell is reached. It is easy to visualize the life of a cell continuing in each of the two into which it divides, but when a new human individual is created, one cell only is chosen as the transmitter of immortal life and all the other cells of the parent body die and decay.

The New York *Sun* of September 15 quotes Dr. Raymond Pearl, Director of the Institute of Biological Research of Johns Hopkins University:

"Nothing like death is inevitable in the cell itself."

The cell when placed separately under such

conditions as to supply appropriate food in the right amount and to remove promptly the deleterious products of metabolism, or chemical changes, can probably live forever."

"This assertion is based on the successful cultivation of tissues from man's body, and the bodies of other animals, achieved during the last few years. Dr. Pearl says that the experimental culture of cells and tissues has now covered virtually all the essential elements of the metazoan body, including even some of the most highly differentiated of those tissues, nerve cells, muscle cells, heart muscle cells, spleen cells, connective tissue cells, epithelial cells from various locations in the body, kidney cells and others have all been successfully cultivated *in vitro*, or in special nutrient mediums."

Particularly striking is the culture work of Carrel and Ebeling. These great scientists, by transferring the culture at frequent intervals into fresh nutrient medium, have kept alive for more than fourteen years, and in perfectly normal and healthy condition, a culture of tissue from the heart of a chick embryo. There is every reason to suppose that by a continuation of the same technic, the culture can be kept alive indefinitely. Although we die, our cells have the capacity to live forever. Not even senescence, or old age, is a necessary concomitant of cellular life."

"A fundamental reason that higher multi-cellular animals do not live forever is the differentiation and specialization of function of the cells and tissues of the body as a whole. In the body, any part is dependent for the necessities of its existence, as for example nutritive material, upon other parts. It is, there-

fore, the mutually dependent aggregate of cells and tissues that brings about death, and not any inherent or inevitable mortal process in the individual cells themselves."

These speculations may not be especially practical, but they illustrate ways in which physicians may discuss a popular topic

EXTRA-TERRITORIALITY

Those who uphold the insistence of Europeans on maintaining their own government and courts in foreign lands will find its justification on hygienic grounds in an editorial from the *New York Herald-Tribune* of August 13th describing conditions in Shanghai, where a thousand Chinese are dying daily of cholera in the old city, and none in the new. The editorial says:

"To understand the significance of these figures and their bearing upon the question of foreign concessions in China it is necessary to recall the origin of the Shanghai 'settlement.' There was a huge Chinese city on the Woosung long before the foreigner came. When, in 1843, the port was opened to foreign trade, the foreigners found its population living under conditions which would have meant early death for Europeans. They asked for an allotment of land where they could build houses and streets after their own kind, and the Chinese assigned the swamplands along the river bank below the city. The worth-

less marsh was considered quite good enough for the foreigner.

"The foreigners accepted the land assigned, and upon it during the succeeding fourscore years they have built a magnificent modern city, whose broad avenues and towering buildings quite overshadow the old Chinese metropolis. The Chinese themselves have not been slow to seek the advantages of the foreign settlement, and they have moved into it by thousands, so that to-day about 90 per cent of its inhabitants are Chinese.

"During all of these years, despite the influx of Chinese, the foreigners have kept the municipal administration in their own hands. Sanitation, roads and streets and police protection have been rigorously kept up to foreign standards. It is only necessary to look at the surrounding towns, at the native city of Shanghai itself, and the conditions which prevail there under Chinese administration, to see why the foreigners living in the settlement insist upon retaining their control."

LIGHT MEALS

There are fashions in eating as in most other customs. Lunches like clothing are now scanty and light.

The *New York Herald-Tribune* of September 10 contains an account of an investigation made by a representative of a chain of drug stores regarding what folks eat for lunch. The article says:

"The average mid-day meal for persons of sedentary proclivities has become so lightsome that it is almost frivolous. A cup of coffee, a sandwich and pie is the masculine version of the affair, while chocolate malted milk and a sandwich is the staple of the channel-swimming sex.

"The decrease in the sale of patent medicines is undoubtedly due to the fact that people are eating less," Mr Griffiths continued. "In the country, where the people still eat heavily, panaceas and cure-alls still have a large sale. It is only in the cities where people are eating less that the patent medicine trade is on the decline.

"Then there is the subject of coffee. Six

years ago hardly any drug stores sold coffee over the counter," Mr Griffiths says. "But now there probably are more than 1,000 drug stores in town where coffee and sandwiches may be had. The most popular sandwiches are ham, cheese and chicken, in the order named.

"Prohibition, everybody says, has nothing to do with the lighter lunch movement. People are just eating less, that's all, and as a result they tackle the afternoon's work with less distaste. And besides, they can always even things up at dinner."

Temperance in eating undoubtedly is a considerable factor in the raised standard of general healthfulness of a community. A "skinny" boy or girl is a rarity, while an excess of fat is coming to be considered a humiliation. Folks generally are willing to diet themselves for the sake of health. If their undirected frugality gives evident results in nutrition, much more dieting directed by intelligent knowledge will bring about a higher standard of physical strength and vigor, and mental alertness.

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review as dictated by their merits, or in the interests of our readers.

HYDROGEN ION CONCENTRATION OF THE BLOOD IN HEALTH AND DISEASE. By J HAROLD AUSTIN and GLENN E. CULLEN Octavo of 75 pages Baltimore, Williams and Wilkins Company, 1926 Cloth, \$2.00 (Medicine Monographs, Vol. VIII)

PERNICIOUS ANEMIA By FRANK A. EVANS M.D 12mo of 178 pages Baltimore, Williams and Wilkins Company, 1926 Cloth, \$2.50

ROENTGEN INTERPRETATION A Manual for Students and Practitioners By GEORGE W HOLMES, M.D., and HOWARD E. RUGGLES, M.D Third edition, revised. Octavo of 326 pages with 226 illustrations. Philadelphia and New York, Lea and Febiger, 1926 Cloth, \$5.00

EDGAR'S PRACTICE OF OBSTETRICS FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By J CLIFTON EDGAR. Revised by NORRIS W VAUX Sixth Edition. Octavo of 779 pages with 684 illustrations Philadelphia, P Blakiston's Son and Company, 1926 Cloth, \$8.00

HAY FEVER AND ASTHMA A Practical Handbook for Hay Fever and Asthma Patients By RAY M BALYEAT, A.M, M.D 12mo of 198 pages with 27 illustrations. Philadelphia, F A. Davis Company, 1926 Cloth, \$2.00

AURICULAR FIBRILLATION By J G EMANUEL, B.Sc., M.D, F.R.C.P The Ingleby Lectures, delivered at the University of Birmingham, May 6th and May 13th, 1925 Octavo of 31 pages. Birmingham, Cornish Brothers, Ltd., 1926 Cloth, £0-3-6

THE PEAKS OF MEDICAL HISTORY An Outline of the Evolution of Medicine for the Use of Medical Students and Practitioners By CHARLES L. DANA, A.M, M.D, LL.D Octavo of 105 pages, with illustrations New York, Paul B Hoeber, Inc., 1926 Cloth, \$3.00

MESENTERIC VASCULAR OCCLUSION Supplemented by an Appendix of 76 Original Cases By A. J COCKINIS, M.B, B.S, F.R.C.S Octavo of 159 pages Eng New York, William Wood and Company, 1926. Cloth, \$4.00

CARBOHYDRATE METABOLISM AND INSULIN By JOHN JAMES RICKARD MACLEOD, F.R.S, M.B Octavo of 357 pages with illustrations. London and New York, Longmans, Green and Company, 1926 Cloth, \$6.00. (Monographs on Physiology)

THE SECRETION OF THE URINE. By ARTHUR R. CUSHNY, M.A., M.D Second edition Octavo of 288 pages with diagrams London and New York, Longmans, Green and Company, 1926 Cloth, \$5.50 (Monographs on Physiology)

BAINBRIDGE AND MENZIES ESSENTIALS OF PHYSIOLOGY Fifth edition, edited and revised by C. LOVATT EVANS, D.Sc., M.R.C.S Octavo of 508 pages with illustrations London and New York, Longmans, Green and Company, 1925 Cloth, \$5.00

BIRTH CONTROL AND THE STATE A Plea and a Forecast By C P BLACKER, M.C., M.A. 16mo of 87 pages New York, E. P Dutton and Company, 1926 Cloth, \$1.00

BRAINS OF RATS AND MEN A Survey of the Origin and Biological Significance of the Cerebral Cortex. By C. JUDSON HERRICK 12mo of 382 pages with illustrations Chicago, The University of Chicago Press, 1926 Cloth, \$3.00

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THE TREATMENT OF FRACTURES WITH NOTES UPON A FEW COMMON DISLOCATIONS By CHARLES LOCKE SCUDDER, A.B, Ph.B, M.D Tenth edition, revised Octavo of 1240 pages, with 2027 illustrations. Philadelphia and London, W B Saunders Company, 1926 Cloth, \$12.00

SURGICAL ANATOMY OF THE HUMAN BODY By JOHN B DEEVER, M.D, Sc.D., LL.D, F.A.C.S Second edition in three volumes, thoroughly revised and rearranged Volume I Scalp, Cranium, Brain, Face, Mouth, Throat, Organs, of Special Senses Quarto of 551 pages with illustrations Philadelphia, P Blakiston's Son and Company, 1926 Full fabricoid, \$36.00, payable \$12.00 upon receipt of each volume.

RECENT ADVANCES IN OBSTETRICS AND GYNÆCOLOGY By ALECK W BOURNE, B.A., M.B., B.Ch.(Camb), F.R.C.S (Eng) 12mo of 344 pages, with illustrations Philadelphia, P Blakiston's Son and Company, 1926 Cloth, \$3.50

SURGICAL CLINICS OF NORTH AMERICA Vol 6, No 3 June, 1926 (Lahey Clinic Number) Published every other month by the W B Saunders Company, Philadelphia and London. Per Clinic Year (6 issues) Cloth, \$16.00 net, paper, \$12.00 net.

MEDICAL CLINICS OF NORTH AMERICA. Vol. 10, No 1 July, 1926 (Philadelphia Number) Published every other month by the W P Saunders Company, Philadelphia and London. Per Clinic Year (6 issues) Cloth, \$16.00 net, paper, \$12.00 net.

CLINICAL PEDIATRICS By JOHN LOVETT MORSE, A.M, M.D Octavo of 848 pages, illustrated. Philadelphia and London, W B Saunders Company, 1926 Cloth, \$9.00

ELEMENTS OF PATHOLOGY By ALLER G ELLIS, M.Sc M.D Octavo of 544 pages, with 95 illustrations Philadelphia, P Blakiston's Son and Company, 1926 Cloth, \$5.00

PSYCHOLOGICAL MEDICINE. A Manual on Mental Diseases for Practitioners and Students By SIR MAURICE CRAIG, M.A., M.D, and THOMAS BEATON, M.D Fourth edition Octavo of 437 pages, with 25 plates Philadelphia, P Blakiston's Son and Company, 1926 Cloth, \$6.00

BOOK REVIEWS

HYGIENE OF SEX By MAX VON GRUBER. Authorized English translation. 12mo of 169 pages. Baltimore, Williams and Wilkins Company, 1926. Cloth, \$1.50

We have always fought shy of semi-popular books and sex and when we undertook to review this one it was no exception to the rule. Carrying it with other volumes under our arm we met with one of the solid men of the profession. He informed us he had read "Hygiene of Sex" and that he had found it one of the 'best of its kind'.

We find it sane, non-sensational, true and tending towards common sense. It has chapters devoted to "Fertilization," "Heredity and Breeding," "The Organs of Sex," "The Sexual Instinct and the Assumed Necessity of Coitus for Health," "The Limitation of Conception," "Aberrations of the Sexual Instinct," "Venereal Diseases and Their Prevention," "Marriage or Free Love."

The jacket tells us that 300,000 copies have been sold abroad.

To those interested in this subject this small volume of 169 pages offers the best of its type to the lay-reader.

T W

CHEMISTRY AND RECENT PROGRESS IN MEDICINE. By JULIUS STIEGLITZ. Octavo of 62 pages. Baltimore, Williams and Wilkins Company, 1926. (The Johns Hopkins University School of Medicine, The Charles E. Dohme Memorial Lectureship, Second Course, 1924.)

In 1916, Mrs. Chas. E. Dohme of Baltimore founded a lectureship in chemistry at Johns Hopkins in memory of her deceased husband, a well-known chemist. Through her generosity, the public has benefited by an admirable series of lectures linking chemistry and medicine. This volume comprises the lectures delivered by Prof. Stieglitz in May, 1923.

He first discusses the uses of drugs foreign to the body such as ethylene gas, tryparsamide and the anti-septic dyes, showing the progress made and the great possibilities of the future. Next he discusses the isolation and use of internal secretions, particularly insulin, pituitary and ovarian hormones, the vitamins and recent progress in the purification and improvement of antisera. He next gives an account of Howland and Marriott's work on calcium metabolism, Henderson's work on carbon dioxide and concludes with an extended discussion of the present theory of the fundamental principles of oxidation.

Some of the above is familiar to most of us but the theory of oxidation is new and important as it does much to explain the basic processes of cell life. These lectures are not too technical, are interesting and should be read by many, but especially by the laity, for the striking picture of what organized chemical research has contributed in America to medical progress.

E. B. SMITH

ARCHIVES OF THE ANDREW TODD MCCLINTOCK MEMORIAL FOUNDATION FOR THE STUDY OF DISEASES OF THE ALIMENTARY CANAL. Volume 1. Pleomorphism in Bacterial Protoplasm. A study in Psittacosis. By ANDREW TODD MCCLINTOCK, M.D. Octavo of 240 pages. Privately printed, 1925.

This is a most interesting record of research in an epidemic of psittacosis occurring in Wilkes-Barre, Pa., in 1917. The epidemic is traced from its source in a group of parrots on sale in that city through a considerable number of human victims. After the epidemic subsided, the author conducted a remarkable and exhaustive

series of experiments with the causative organism, a pleomorphic bacillus. His findings are most interesting to the bacteriologist, but just as interesting is the picture one gains of the author. One senses that he had a rare and remarkable mind and regrets that he could not live to enjoy the brilliant future that would inevitably have been his.

E. B. SMITH

A TEXTBOOK OF PHYSIOLOGY By WILLIAM D. ZOETHOUT, Ph.D., Professor of Physiology in the Chicago College of Dental Surgery (Loyola University). Second edition. The C. V. Mosby Co., St. Louis, Mo., 1925. Price, \$4.50.

In the preface the author states that his book is "intended to fill the gaps between the larger texts [on physiology] of which there are many in the field, and those offering a briefer course." In preparing such a volume the author assumed no easy task but a perusal of his book shows he has acquitted himself well. After a preliminary discussion of the physics and chemistry of the cell the author considers the major phenomena of general physiology, such as muscle-nerve reactions, the circulation and coagulation of blood, digestion, respiration, special sense organs, etc. The author has purposely avoided voluminous discussion of involved and obscure theories concerning topics physiological but rather has aimed to make his book a practical one. With the latter purpose in mind considerable space has been devoted to such timely subjects as physical exercise, mental work, nutrition and fatigue.

The section on the physiology of vision is exceptionally fine.

FRANK E. MALLON

ANESTHESIA By JAMES TAYLOR GWATHMEY, M.D. With Collaborators on Special Subjects. Second revised edition. Octavo of 799 pages, with illustrations. New York and London, The Macmillan Company, 1925. Cloth, \$7.50.

As compared with earlier editions of the same book and the other texts on anesthesia, this revised edition shows the enlargement of the field of anesthetic agents. We find the usual routine chapters on the history, physiology and action of the various agents, all brought up to date and carefully described.

The section on local and spinal anesthesia is an additional volume in itself, and gives the reader all this information, which usually has to be looked for in a separate book, and adds greatly to its value as a reference. The chapters on the practical application of anesthesia are clearly written, and should be useful both to the beginner and to the expert. The selection of anesthetic, the technique for special operations and the treatment before and after operation, practical problems in the life of the medical man, are made very clear.

Geo. W. TONG.

PARENTHOOD AND THE NEWER PSYCHOLOGY Being the Application of Old Principles in a New Guise to the Problems of Parents with Their Children. By FRANK HOWARD RICHARDSON, A.B., M.D. Octavo of 200 pages. New York and London, G. P. Putnam's Sons, 1926. Cloth, \$1.75.

This book makes very pleasant reading. On picking it up the reviewer was inclined to say platitudes and he does not know that he has changed his mind, but whether so or not he does think that if the book is read with care and the ideas suggested carried out the generation thus instructed will profit.

It can be recommended to thoughtful and earnest parents.

L.

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ARSENIC AS AN ETIOLOGICAL FACTOR IN THE GENESIS OF ECZEMA

By BINFORD THRONE, M D, LAIRD S VAN DYCK, M D, ELEANOR MARPLES, A.B, and
C N MYERS, PH D

From the New York Skin and Cancer Hospital, New York City

THE mechanism of eczema was discussed by the authors in a previous article dealing with the treatment of the pathological lesion by means of sodium thiosulphate in freshly prepared solutions. At that time it was pointed out that eczema was primarily a problem of edema in which the function of the cell itself was involved. This function or rather dysfunction is associated with certain toxic manifestations clinically apparent in the skin, the blood stream and the liver. The cell dysfunction appears to be brought about through certain stimuli producing an "overcharge" in the function of the cell in which electrolytes, non-electrolytes, metallic poisons and allergic phenomena play a prominent role. For instance one of us (M) has shown that in dermatitis exfoliativa following arsphenamine injections there is a deposition of arsenic in the cutaneous layers and that as clinical improvement takes place the amount of arsenic present in the desquamating skin decreases while at the same time there is an increase of arsenic in the blood and urine, which formerly have shown no arsenic or not more than a trace.

A second phenomenon supporting these views is illustrated in the absence of arsenic in the blood stream and urine during the onset of jaundice. In the investigation of Fordyce, Rosen, Mueller and Myers it was shown that arsphenamine in therapeutic doses may produce a disturbance of the vascular system in which the peripheral tonus suddenly turns to a sympathetic overbalance and that of the splanchnic region to a parasympathetic.

In a previous article it has been shown that in all cases of eczema there is a marked increase in the sugar content of the blood stream as well as a high chloride content. The weeping and vesicular manifestations are invariably associated with the chloride content, and the pruritus with the sugar content. As a normal balance is reached the values for sugar and chloride drop and clinical improvement is noted. This improvement is brought about by re-establishing the cell function

through the use of sodium thiosulphate, by means of which the intoxicating substances are released and the controlling mechanism of the cell is restored to normal. This restoration of cell function is associated with the process of osmotic tension, and the protective action of non-injurious products which permit the normal manifestation of these stimuli.

In eczema there is a condition of balance between varying shifting and opposing forces—a characteristic of a living process yielding a status that might be designated as dynamic equilibrium. This results in a disturbance of the regulation of volume. The regulatory mechanism is capable of overcoming certain defects in its component parts, but this mechanism of repair is limited by the conditions of disease. It is implied that our conception of eczema presupposes a primary condition of injury from within due to the failures in the transmission of certain nerve stimuli or to physiological disturbances of nutrition, or of endocrinology which cause toxic conditions to develop. These are followed by more pronounced injuries resulting in a pathological lesion of the skin. In a word, eczema may be regarded as a concept of edema due to a perversion of the regulatory mechanism. In man edema frequently follows injury or blocking of the lymph channels.

In the first manifest instance edema is a disturbance of the volume of the cells of the cutaneous layers. In this respect the fluids accumulate in these layers in the vital effort to restore electronic and osmotic balance. In the failure that temporarily results, the fluids exude to the skin surface and produce the vesicular, weeping condition characterizing eczema. Volume is determined largely through osmotic tendencies and there is no doubt that electrolytes and non-electrolytes enter very largely in this mechanism. In this respect our attention has been directed to the types of vital operation. On the one side carbohydrate reducing substance—non-electrolyte in nature—and on the other, the

chlorides—electrolytes—have absorbed our attention in explanation of this mechanism

Experimentally it has been shown that the entire periphery and splanchnic region are controlled by one nervous system. Investigations by E. F. Mueller have shown that sudden changes in the skin are brought about by nerves controlling the skin.

Histologically it is known that in eczema there is a dilatation of the blood vessels of the papillary and sub-papillary layers, inflammatory cellular infiltration around the dilated capillaries, edema of the papillary and superficial part of the reticular layer, dilatation of the interepithelial lymph spaces, a spongy condition of the prickle cells, moderate acanthosis and parakeratosis. These observations are important in their relation to the part that arsenic plays in the etiology of eczema. The work of Spies in relation to anesthesia in tonsillectomy brought out the important fact that inflammatory reaction and swelling are controlled by nervous reflexes. The nervous system also plays an important part in true anaphylaxis and sensitization phenomena. Similarly the endocrine glands are bound up with the sympathetic nervous system. Whitfield noticed in a case of vesicobullous eczema of the legs in a gouty individual that when the bullae burst and the serum ran down the legs there appeared in a few minutes a red streak which was followed in a few minutes by an urticarial wheal. This was succeeded by a line of vesicles and then a long narrow bulla. The patient's serum caused no reaction when applied to Whitfield's own arm. He suggested that the patient had become sensitized to his own tissue products. Bloch considers that the primary cause of eczema is an injury of the epithelium through substances which reach the epidermis either through the blood stream or by external means.

In eczema there is a change in the permeability for the blood plasma due to a dilatation of the blood vessels, which lose their contractility. With these histological changes there is an increased tension and pulling of the nerve elements. These abnormalities lead to pruritus. According to Bayliss the sensory nerves regulate vaso-dilator irritability. These nerves are dichotomous, one branch going to the smallest vessels, another going to the corpuscles of sensation in the skin. With these ideas in mind it is apparent that inflammatory-causing substances can act either by way of the nervous system or directly on the blood vessel system.

The experimental part of this article deals with a group of patients showing eczema in its normal clinical condition. Further questioning showed that there was an industrial contact with substances which might be responsible for the etiology. In this group there were fifty-five (55) patients on whom careful study has been made both in the blood chemistry as well as in the

arsenic content of the urine after the injection of sodium thiosulphate. This procedure has been shown by us to be a satisfactory diagnostic method in detecting arsenic intoxication. The patients included in this group invariably show a high sugar for the blood. The chloride factor is a trifle more diverse in that its manifestation is noted either in extremely low values or in abnormally high values. As pointed out in the earlier publications ninety (90) milligrams of sugar per one hundred (100) cubic centimeters of blood is regarded as normal by our method, designated as the Hastings-McLean method. The normal chloride content according to the Whitehorn procedure is placed at four hundred and fifty.

Our experience has shown that the sugar content runs parallel with the chloride content and that exacerbations always occur when the five hundred mark is reached for the chlorides. Patients at the menstrual period also show abnormalities both in their blood chemistry as well as in their clinical improvement. These patients are maintained as nearly as possible on a salt-free ten per cent carbohydrate diet. The treatment consists of the intravenous injection of five cubic centimeters of a ten per cent thiosulphate solution which has been freshly prepared. The use of old solutions or of those which have shown a sulphur deposit is to be avoided as they show a less marked action in re-establishing the normal regulatory mechanism.

The following case histories are typical of that group of patients who have arsenic as an etiological factor in the genesis of their eczema.

Case No 1—E. B., female, age 31. Was referred for treatment April 1, 1925. Previous history was negative except for a stomach trouble, which had been diagnosed as a nervous indigestion. This was due to chronic constipation and carbohydrate fermentation. She also had a cystic ovary and chronic appendicitis. A recent operation showed this.

Skin condition. The first attack of the skin trouble developed in December, 1924, and lasted only a few weeks. The condition for which she applied for treatment began in February, 1925, and had been present eight weeks when she was first seen. The rash began on the dorsum of the right hand and on the left leg. From these places it had spread and at the date of her first visit it was present on the scalp, face, neck, limbs and trunk, in fact it was practically universal. The primary lesions were papulo-vesicles seated on an oedematous, reddened base.

In places where the vesicles had ruptured the surface was raw and oozing. The oedematous condition of the skin was very marked. There was also considerable infiltration and a marked tendency to lichenification. She was admitted to the hospital and after four weeks was discharged somewhat improved. On May 7 she had a relapse and was sent to the hospital again where she stayed 12 weeks. During these hospital periods all kinds of internal and external treatment were tried without any appreciable benefit. Among other things she had eight X ray treatments. The X rays seemed to be of slight benefit for a few days only.

On January 16, 1926, she was given Soda thiosulphate and an examination of her urine disclosed the presence of arsenic. Since that date the injections of Soda thiosulphate have been continued. She began to improve

at once. This improvement has been consistent with the exception of an exacerbation on March 1st and a slight exacerbation on March 19th. At this date, August 14th, her skin is entirely normal. The infiltration has entirely disappeared. There are no moist oozing areas. The pruritus has stopped. At night, however, after dietary indiscretions, there is a tendency for the development of a few papular urticarial wheals on the forearms.

She was operated at St. Catherine's Hospital, Brooklyn, a few weeks ago by Dr. Chas. A. Gordon, who removed a cystic ovary, a diseased tube and a chronically inflamed appendix. This severe surgical procedure has not caused a relapse. The development of the urticarial wheals would seem to show that the arsenic has not been entirely eliminated and that when it comes in contact with some intermediary metabolic product it can react in the form of urticaria.

Occupational history for years she had worked in a paper box establishment. Her work for many months previous to her illness consisted in pasting papers printed with gilt letters in boxes. These papers would frequently have much of the gilt in loose powder form when she received them. It was her habit to moisten her fingers with her tongue to facilitate her handling the papers.

Examination of the gilt powder for arsenic showed 4.286 mms, per 100 grams.

Examination of the paste for arsenic showed 0.035 mms per 100 grams.

The following are the laboratory reports of this case.

BLOOD			URINE		
Date	NaCl mg per 100 cc.	Sugar mg per 100 cc.	Specific gravity	Per cent Total solids	Mg arsenic per 100 gms. dried specimen
11/30/25	503.0	107.0			
12/7/25	467.0	101.5			
1/11/26	472.0	110.0			
1/15/26	499.0	106.0	1.021	1.95	0.268
1/20/26			1.021	2.31	0.102
1/22/26			1.016	1.58	0.376
1/27/26			1.011	1.59	0.097
1/29/26			1.020	4.46	0.087
2/2/26			1.011	0.85	1.294
2/8/26			1.012	1.01	0.560
2/15/26			1.019	2.04	0
2/19/26			1.015	1.37	0.522
2/26/26			1.022	2.88	0.138
3/6/26			1.020	1.45	0
3/16/26			1.010	0.83	0
3/26/26			1.012	2.43	0.182
4/2/26			1.017	2.52	0.127
4/9/26			1.018	2.94	Trace
4/23/26			1.019	1.89	0.182
4/26/26	488.0	97.0			
4/30/26			1.019	2.31	0
5/4/26			1.015	2.05	0
5/12/26			1.016	2.81	0
5/21/26			1.020	2.88	0
6/1/26			1.014	1.55	0
6/9/26			1.024	2.34	0.056

Case No. 2—E. J., male, white, age 43. Duration of disease 2 months. Rash first appeared on the right ankle and spread to the legs, thighs, hands, forearms, arms and face. The primary lesion was a papulo-vesicle. The evolution of the lesions was associated with oozing infiltration and oedema of the skin. Pruritus was extremely marked.

After the acute stage subsided there was lichenification.

He had suffered with a similar condition five years ago.

He was admitted to the hospital on March 4, 1926, and discharged to the out-patient department on March

20th. His occupational history was varied, at times he worked as a painter, at others as a helper in a barrel factory, but for the past several years he had been on construction work where he came in contact almost constantly with cement.

At this date, August 14th, he is practically well.

The following is a report of the laboratory findings in this case.

Path No. 9248 "E. J."

Microscopical Examination

Section shows a moderate amount of edema in the corium especially in the upper part. The edema is both intra and intercellular. There is a perivascular infiltration of lymphocytes and endothelioid cells which involves even the blood vessels in the lower corium. The vessels themselves are not dilated. The epidermis appears unaffected.

Diagnosis. Chronic eczema.

Histological report by Dr. D. S. D. Jessup, Director of Laboratories, Skin and Cancer Hospital.

BLOOD			URINE		
Date	NaCl mg per 100 cc.	Sugar mg per 100 cc.	Specific gravity	Per cent Total solids	Mg arsenic per 100 gms. dried specimen
3/1/26	458.5	117.1			
3/3/26	446.0	108.0			
3/5/26	446.0	108.0	1.020	2.69	0.314
3/8/26	433.5	128.0	1.025	2.24	0.112
3/10/26			1.028	2.04	0.089
3/12/26			1.016	1.56	0.448
3/14/26			1.021	2.83	0.062
3/15/26	471.0	108.0			
3/16/26			1.015	2.05	Trace
3/18/26			1.028	3.75	0
3/19/26	450.2	103.5			
3/20/26				4.51	0.069
3/22/26			1.020	4.07	0.048
3/24/26	488.0	93.3	1.025	5.68	0.031
3/26/26	488.0	110.8			
3/29/26	492.0	114.8			
4/5/26	499.0	102.0			
4/12/26	495.0	92.0			
4/21/26	471.0	95.0			
4/30/26	479.3	98.4			
5/7/26	467.0	93.3			

Case No. 3—N. Y., white, male, aged 22 years. Admitted to the hospital, March 4, 1926. Duration of the disease on admission was five months. He had had two previous similar attacks. The rash started on the anterior surfaces of the elbows and in the popliteal spaces. It spread and on admission was practically universal, normal skin only showing on the upper part of the arms and on part of the trunk. The primary lesion was a papulo-vesicle. The skin of the involved parts was oedematous infiltrated, reddened, oozing and covered with papulo-vesicles. Pruritus was marked.

Thiosulphate treatment was instituted at once. The response to this treatment was immediate and he was discharged to the outpatient department in fair condition on April 19. He had an exacerbation after discharge, probably on account of inability to follow orders at home, and was readmitted on April 28. He was discharged June 18, and at this date, August 14 he is practically well.

Occupational history. For one year he had worked in a chemical factory handling an insecticide containing arsenic. He quit this work because the powder irritated his eyes. He claimed that it "made his wrists sore." This work was done during the third year previous to his admission to the hospital.

The following are the laboratory findings in this case
 Path. No 9245 "N Y"
 Microscopical Examination

There is a thickening of the epidermis so that the rete pegs are at all angles and shapes and a thickening of the surface of the papillary plates in places. The granular layer is regularly thickened. In places there is a horny crust and in others a small vesicle has ruptured on the surface. There is a slight perivascular infiltration that affects the vessels of the papillary body and upper corium.

Diagnosis Chronic eczema

BLOOD			URINE		
Date	NaCl mg per 100 cc.	Sugar mg per 100 cc.	Specific gravity	Per cent Total solids	Mg arsenic per 100 gms. dried specimen
3/5/26	450.2	99.6	1.030	4.54	0.087
3/8/26	462.7	108.0	1.020	3.48	0.099
3/10/26	475.2	100.8	1.020	2.27	Trace
3/12/26			1.025	3.73	0.056
3/14/26			1.026	4.28	0.253
3/16/26			1.018	2.89	Trace
3/18/26			1.030	5.83	0.026
3/19/26	485.2	98.0			
3/20/26			1.027	4.88	0.061
3/22/26	488.0	116.0	1.025	5.67	0.026
3/24/26			1.030	5.90	0.066
3/26/26	472.5	90.8	1.025	4.40	0.075
3/28/26			1.019	3.30	0
3/29/26	492.0	114.8			
3/30/26			1.020	3.71	0.116
4/1/26			1.015	2.48	0.069
4/2/26	479.3	108.0			
4/3/26			1.019	2.88	0
4/5/26			1.015	2.46	0
4/7/26			1.018	2.95	Trace
4/11/26			1.025	4.54	0.073
4/12/26	467.0	113.0			
4/13/26			1.027	4.78	0
4/15/26			1.021	3.71	0.094
4/19/26	471.0	105.0	1.020	3.82	0
4/28/26	495.0	120.3	1.031	2.38	0
4/30/26	446.0	103.6			
5/3/26	488.0	106.2			
5/5/26	471.0	95.0			
5/14/26	462.0	113.0	1.027	5.00	0.035
5/17/26			1.022	3.57	0.111
5/19/26			1.022	3.64	0.049
5/21/26			1.030	5.26	0
5/24/26			1.025	3.86	0.033
5/26/26			1.031	3.40	0
5/28/26			1.029	2.73	0.064
6/2/26	462.7	76.5	1.028	3.66	0
6/4/26			1.020	3.48	0
6/11/26	492.0	106.2			
6/21/26	491.8	111.0			
7/7/26	475.1	105.4			
7/14/26	482.6	108.1			

Case No 4—A S, male, white, age 21 years. Admitted to the hospital, April 4, 1926. He had suffered with recurring attacks of eczema for years. The present condition began two years ago in the popliteal spaces and spread up and down the legs, to the arms, forearms, wrists and hands, the face was also involved, as was parts of the trunk. The rash consisted of papules and vesicles. The skin was markedly edematous. There was crusting and oozing. Lichenification was present, especially in the flexures. He responded to sodium thiosulphate treatment and was discharged to the outpatient department on April 19th. At this date he is well.

Occupational history for about thirty months he had worked in a paint store.

Laboratory reports as follows

Microscopical report by Dr D S D Jessup, Director of Laboratories, Skin and Cancer Hospital
 Path No 9249 "A S"

Microscopical Examination

There is a moderate amount of inter and intracellular edema of the connective tissue of the upper corium and about the vessels. The vessels themselves are not dilated and are surrounded by an endotheloid and lymphocytic infiltration.

A few cells have wandered into the epidermis which appears normal otherwise. The hair follicles are not involved.
 Diagnosis Chronic eczema

BLOOD			URINE		
Date	NaCl mg per 100 cc.	Sugar mg per 100 cc.	Specific gravity	Per cent Total solids	Mg arsenic per 100 gms. dried specimen
1/20/26	462.7	115.00			
1/22/26	430.0	108.2			
1/25/26	442.0	111.2			
1/27/26	442.0	108.0			
2/3/26	450.0	119.2			
2/19/26	462.7	92.0			
3/1/26	438.0	99.5			
3/3/26	446.0	116.0			
3/5/26			1.029	5.14	0.272
3/8/26	425.2	111.5	1.023	2.76	Trace
3/10/26	458.5	103.5	1.020	1.92	0.098
3/12/26			1.020	2.12	0.074
3/14/26			1.020	2.20	0.072
3/15/26	446.0	95.0			
3/16/26			1.020	3.13	0.075
3/18/26			1.020	3.40	Trace
3/19/26	446.0	100.8			
3/20/26			1.024	5.25	Trace
3/22/26	450.5	96.8	1.021	4.26	Trace
3/24/26			1.019	3.89	0.084
3/26/26	438.0	87.0	1.026	6.04	0.029
3/29/26	458.5	108.0			
3/30/26			1.017	3.19	0.043
4/1/26			1.020	2.58	Trace
4/2/26	458.5	100.8			
4/5/26			1.015	2.42	0.054
4/7/26			1.017	3.11	0.048
4/12/26			1.019	2.67	0.048
4/1/26	442.0	89.0			
4/16/26			1.017	3.50	0.068
4/19/26			1.017	3.80	0.041
4/23/26	471.0	102.0	1.018	2.92	0.156
4/26/26			1.029	5.01	0.303
4/30/26			1.018	3.12	0
5/3/26	458.5	103.6			

Case No 5—O J, male, white, age 48. Admitted, March 24, 1926.

Condition began 14 years ago on abdomen, cleared up after two years and recurred in a short time and spread until the rash became practically universal. For several years there were periods of remission but never complete disappearance of the skin condition. On admission he showed universal involvement except for a few small areas on the upper part of the trunk. The skin was red, scaly, oedematous and in many places, lichenified. Trauma such as scratching caused a serious discharge. Habits for years he had drunk large amounts of whiskey, frequently a quart a day. Occupation he had worked at various trades, was varnisher in a furniture factory for several years, previous to the appearance of the skin disease. He also gave a history of having taken arsenic. Under sodium thiosulphate therapy he was practically cured.

Laboratory findings

DATE	BLOOD			Mg arsenic per 100 gms dried specimen	URINE			Mg arsenic per 100 gms dried specimen
	NaCl mg per 100 cc	Sugar mg per 100 cc.	Per cent total solids		Specific gravity	Per cent total solids		
5/24/26	454.0	110.8	21.46	0.117	1.023	6.23	0.023	
3/26/26	488.0	99.6			1.020	4.95	0	
3/8/26					1.020	4.91	0	
3/29/26	503.0	108.0						
3/30/26					1.020	3.35	0.126	
3/31/26	479.3	100.8						
4/1/26					1.024	4.94	0	
4/2/26	499.0	106.5						
4/3/26					1.027	5.52	0	
4/5/26	492.0	96.8			1.026	4.60	0.077	
4/7/26					1.021	3.85	0	

Case No 6—Sol C, age 45, male, white, admitted January 25, 1926. The disease started on the abdomen as a scaly erythematous patch. The rash spread and became absolutely universal, and on admission he showed generalized redness, scaling, crusting and edema of the skin, with patches which were wet and oozing. He improved steadily and was discharged to the outpatient department on March 1st. After discharge he was persuaded to enter another hospital. In this hospital arsenic as a causative factor in his condition was not considered and he was given injections of, probably, sodium cadolate intramuscularly. His condition became very much worse and he returned to the Skin and Cancer Hospital on June 25th. He has progressed nicely and at this date is ready for discharge from the hospital. His condition now shows only a little erythema and moderate lichenification of the flexures of the large joints.

His occupation for thirty years has been tailoring. For some years he has worked as a cap blocker. During his work he continually put pieces of woolen cloth in his mouth. Woolen cloth is sprayed with a solution of arsenic to protect it from moths.

The laboratory findings in this case are as follows:

BLOOD				URINE		
Date	NaCl mg per 100 cc.	Sugar mg per 100 cc.	Specific gravity	Per cent Total solids	Mg arsenic per 100 gms. dried specimen	
1/27/26	499.0	110.8				
1/28/26			1.012	1.43	0.198	
1/29/26	483.5	106.5				
2/ 3/26			1.023	3.81	0	
2/ 4/26			1.020	3.46	0	
2/ 6/26			1.021	4.06	0.122	
2/ 7/26			1.019	2.24	0	
2/ 8/26	425.0	117.1	1.026	4.12	0	
2/ 9/26			1.022	4.04	0.231	
2/10/26	445.0	100.8	1.024	3.97	0	
2/11/26			1.027	4.20	1.111	
2/12/26			1.027	3.78	0.057	
2/12/26			1.027	3.44	0.063	
2/13/26			1.026	4.42	0.024	
2/14/26			1.025	4.42	0.067	
2/15/26	450.0	116.0		4.17	0.237	
2/16/26				3.41	0.665	
2/17/26			1.025	3.75	0	
2/19/26	471.0	144.0				
2/22/26			1.027	4.44	0.065	
2/24/26	468.0	123.0	1.024	3.85	Trace	
2/26/26	483.5	108.0	1.023	4.58	0	
2/28/26			1.022	5.98	0.092	
4/14/26	450.0	144.0				
4/16/26	488.0	109.0				
4/21/26			1.016	2.67	0	
4/23/26	479.3	102.0	1.018	2.68	Trace	

Date	BLOOD		URINE		
	NaCl mg per 100 cc.	Sugar mg per 100 cc.	Specific gravity	Per cent Total solids	Mg arsenic per 100 gms. dried specimen
4/26/26	495.0	99.5	1.016	2.94	Trace
4/27/26			1.017	3.01	0.284
4/29/26			1.020	4.12	Trace
5/ 3/26	446.0	106.2			
5/ 7/26	479.0	147.3			
5/12/26	476.0	95.0			

Case No 7—M McK., white, male, age 24 years. Admitted for treatment March 15, 1926. On admission showed a typical papulo-vesicular eczema involving the face, neck, arms, forearms and hands. There was considerable edema present and in most places a marked serous discharge.

His history showed that he had suffered with similar attacks during the previous few years. He is entirely cured at this date. His occupation was a pipe fitter, and for many months he had been employed in a large general chemical factory.

Below is his laboratory history:

BLOOD				URINE		
Date	NaCl mg per 100 cc.	Sugar mg per 100 cc.	Specific gravity	Per cent Total solids	Mg arsenic per 100 gms. dried specimen	
3/15/26	467.0	108.0				
3/22/26	471.0	99.6				
3/29/26	458.5	110.8				
4/ 5/26	471.0	114.8				
4/12/26	462.7	118.2				
4/14/26	454.0	111.5				
4/21/26	454.0	100.6				
4/28/26	429.3	110.0				
5/ 7/26			1.015	2.08	1.062	
5/14/26	363.6	91.0				
5/19/26			1.029	5.15	0	
6/ 9/26			1.015	1.58	Trace	

In all of these cases clinical improvement has been attained and as far as it is known, recovery has been established. In each instance it has been shown that the exposure to arsenic occurred many months previous to the first mild onset of the eczematous condition. The eczema became a recurrent manifestation which finally resulted in the severe chronic condition which demanded hospitalization. In every instance all other modes of treatment had proven inefficient and in each instance the arsenic as an etiological factor had not been considered.

As early as 1888 Paschkis and Obermayer, *Arsenic and Eczema*, *Med Jahrb*, Wien, 1888, n F iii, 117, stated that arsenic could cause an eczema, but to our knowledge its actual presence has never been previously demonstrated and it is regarded by us an important factor in the production of lesions in the skin whose mechanism will be discussed at length in another article, which will further elucidate our observations.

In looking over the tables of excretion in these cases it will be noted that there "tides of ebb and flow" of arsenic and this is particularly significant in its contrast to arsenic dermatitis following the injection of the arsphenamine group, as employed in syphilis therapy. This contrast centers about the differences in the kind of arsenic involved in the intoxication. Mueller, Rosen and Myers have shown that the reaction of the arsphenamines produces an effect on the involuntary nervous system irrespective of the dose. Whether this change is necessary for a therapeutic action is not known at present. This second group of arsenicals undoubtedly has produced a chronic intoxication which only manifests itself when a sufficiently large stimulus presents itself. This stimulus may not be a direct impetus but is associated with some previous injury or disturbance in which the cell function and physiology has participated but through "overcharge" it has ceased to properly continue its response and on this basis the use of sodium thiosulphate brings about a change in the regulatory mechanism.

It is particularly interesting to note at this time the work of Petersen on lymph alterations following arsenic injections in which he showed that injections of inorganic arsenic produce an increase in the lymph flow with increased protein, sugar, phosphate and bile. These manifestations check up very well with our observations on clinical cases which are reported in this article.

In all of the cases mentioned above the arsenic factor was produced by that group of compounds known as the inorganic preparations. The patients were either individuals working in insecticide plants many months previous or garment workers where contact with contaminated cloth was involved, or fruit dealers, or workers in arsenical factories. In this connection reference is made to manufacturers of paints, dyes and acids as well as storage battery plants. In every single instance mentioned above, at least one chemical case is involved and arsenic has actually been demonstrated by our diagnostic procedure. It is our belief that about *ten per cent* of all the eczema cases in our clinic have arsenic as a contributing factor in the etiology.

SUMMARY

Discussion on *fifty-five* cases of eczema is presented above and this group represents about *ten per cent* of the cases examined by us during the

past year. It has been demonstrated by us that the typical disturbance of sugar and chloride metabolism is generally present and that the eczema is a problem of edema resulting from injury from within. This injury may be accentuated by other intoxicating elements. Previous slight damage may exist and through certain excessive stimuli the lesions may become acute.

These investigations show that there are "tides" of arsenic excretion in which there is an "ebb" and "flow" of arsenic. The eczema will clear up only when these deposits are reduced to a sub-minimum effective stimulus. The arsenic deposits are removed by the persistent use of sodium thiosulphate in a freshly prepared solution which re-establishes cell function as well as converting the arsenic preparations into a soluble condition ready for excretion.

That arsenic is an etiological factor in the genesis of eczema is demonstrated by its presence in the urine.

Eczema follows the ingestion of arsenic through foods, and internal contact through its presence in the blood stream, thereby producing pathological lesions in the skin as a result of dysfunction of the cells of the skin. Histopathology in these cases confirms the diagnosis of chronic eczema.

The condition is treated therapeutically by means of a restricted carbohydrate, nearly salt-free diet and intravenous injections of thiosulphate of soda.

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SYSTEMIC OTOGENOUS INFECTIONS*

By SAMUEL J KOPETZKY, M.D., F.A.C.S., NEW YORK CITY

A SYSTEMIC infection always manifests itself by a typical reaction. It results from the activity of the body defences against bacterial or toxic trauma which has progressed from a local to a general distribution. This reaction, with but slight variations, is noted in malaria, typhoid fever, influenza, puerperal sepsis and other diseases wherein a local infection has gained entrance to the blood stream. The symptoms may vary in intensity, at first exhibiting mild temperature elevations, headache, malaise, anorexia and so forth. Later septic temperature, rigors, sweats, petechial hemorrhages and metastatic foci make their appearance. Once the local infection has become general, the treatment to combat the systemic disease is in each instance essentially the same. The only difference in the treatment of the various conditions producing systemic infection lies in the exact determination of the primary causative lesion. The latter must be eradicated so as to stop the source of the sepsis. In typhoid fever this is accomplished by rest and hygiene of the intestinal tract. In endocarditis the heart is made to function with the minimum amount of energy. So in systemic infection due to otitic disease, the therapy depends upon the character of the causative lesion in the temporal bone. The systemic infection per se is treated in no wise differently than sepsis due to other causes.

In otitic disease, as in other conditions, two types of systemic infection may occur, a toxemia or a bacteremia. The former is always present in the early stages of acute otitis, may be present throughout the subsequent involvement of the mastoid process, but usually disappears with the subsidence of the acute infection. A bacteremia will be present when the primary disease in the mastoid process has spread to and into the venous blood channels. It will also be evident when the initial mastoid disease is of the type characterized by primary involvement of the small blood vessels in the cellular membranes.

The toxemia of the acute otitis is due to the absorption of bacterial by-products. The body reaction is a defence mechanism resulting from Nature's attempt to cleanse the system. We know that this is accomplished by a walling-off of the original focus with a barrier of round cells and by the formation of antibodies. Where this defence is successful the otitis is healed and the toxemia disappears. Where Nature's efforts fail, the toxemia continues, in some instances at a level and in others intermittently. Here the otologist must aid the

patient. An undue prolongation of toxemia with failure of the middle ear disease to subside is indicative of a progression of the local lesion despite the absence of signs or symptoms pointing to such progression. A persistence of mild temperature, increasing pallor, coated tongue and other signs of toxemia over a considerable period of time after the involvement of the middle ear should lead the otologist to open the mastoid process and exenterate the disease which will be found. Once this has been done, the toxemia will begin to abate because its source has been removed. Proper hygiene and diet are the only other requisites in the post-operative treatment of this type of systemic infection.

The otogenous systemic infections characterized by a bacteremia may be produced in one of two ways. In one instance, the cellular elements in the mastoid process are subjected to the pressure of stagnant pus. A necrosis of the bony walls results and there is then produced the usual type of acute mastoiditis, namely, the coalescent type. Where this lesion is permitted to advance, it soon reaches the inner table and subjects it to pressure. A necrosis of the sinus or dural plate occurs, due to the lack of blood supply, and the soft parts of the endocranium are exposed to the purulence in the mastoid cavity. This constitutes a perisinus or extradural abscess. The pressure, however, continues, and is now exerted directly on the wall of the sinus, which becomes compressed first and then infected. Due to the narrowing of the sinus lumen, with the consequent slowing of the blood stream, and the injury to the endothelial lining, a thrombus develops within the sinus. There is present, then, an infection of bacterial origin within the circulating blood, which, with the disintegration of the thrombotic mass, soon becomes disseminated throughout the body. A bacteremia results.

The therapy in such a case is of two varieties, preventive and curative. Prevention is possible by timely surgical intervention before the disease has reached and involved the inner table. This type of otitic systemic infection is frequently the result of delay in operating for the relief of the acute coalescent mastoiditis. Once the systemic infection has become established, the curative treatment is the immediate removal of the thrombus in the blood channel. This is accomplished by thorough cleansing of the infected sinus and obliteration of the route to the general circulation. The latter step is effected by the ligation or resection of the internal jugular vein. After these procedures have been performed the systemic in-

* From the Oto-Laryngological Department of Beth Israel Hospital, New York City.

fection still remains, but its source has been removed. The treatment of the systemic infection per se will be considered later.

One more word as to diagnosis. Too much reliance is often placed upon the presence of a positive blood culture in systemic infections following the acute coalescent mastoiditis. This type is characterized by the gradual progression of a necrotic process toward the inner table or cortex. In advance of the necrotic area is Nature's round cell infiltration in the form of granulations. These granulations are protective in character. They appear on the sinus wall when the sinus is exposed and they appear in the sinus as a formed thrombus before the infection has gained entrance to the lumen. Therefore, in the thrombus due to a coalescent mastoiditis, we find a protective mechanism which becomes infected secondarily. And so, throughout the system, the protective forces have been established before the advent of the infection. Consequently the finding of a positive blood culture in this type of systemic infection will not usually be obtained until the sepsis has been present for some time. In thirty-seven of my cases of sinus thrombosis following coalescent mastoiditis, blood culture was positive fifteen times, negative fifteen times and not recorded in seven. One should not wait for the laboratory to make one's diagnosis of systemic infection in the face of chills, septic temperature, severe headache and prostration, appearing some time after the advent of mastoid disease. The clinical picture is sufficient evidence upon which to base the indications for surgery upon the sinus and jugular vein.

The other type of mastoid disease which produces a systemic infection of bacterial nature is that characterized by the primary involvement of the small vessels in the mastoid process. It is caused by the entrance of a hemolytic organism, usually the streptococcus hemolyticus, into the lumina of the mucosal vessels. This immediately results in a multiplicity of infected thrombi. The infection in this instance is located in the circulating venous blood and not in the cell spaces. Consequently the cells are not subjected to pressure necrosis and their walls are not destroyed by the disease. The disease here is manifested by an intense engorgement of the cell lining and by a hemorrhagic exudate into the cell spaces. It is from these phenomena that the conditions derives its name of the hemorrhagic type of acute mastoiditis. Roentgenography does not aid one in diagnosing this type of mastoiditis. The cells are never destroyed and therefore appear intact, on an X-ray plate, at any time during the course of the disease. In the coales-

cent mastoiditis, gradual destruction of the cells can be seen.

Clinically, a systemic infection is present in the hemorrhagic type from the outset. The disease itself is a systemic infection by virtue of its location within the blood stream. A venous thrombosis is present from the beginning. The lesion progresses by an intravenous growth of the thrombi toward the larger blood channels, and not by the progression of a necrotic process. Consequently a perisinus abscess is rarely observed in this type of acute mastoiditis. The sinus is invaded by the growth of a thrombus from a smaller tributary into its lumen. The clinical picture in the sinus thrombosis of this variety is exactly the same as the clinical picture in the earlier stages of the disease. The presence of bacteria in the general blood stream is not dependent upon the presence of a thrombus in the lateral sinus since particles of infected thrombi are dislodged and find their way into the circulation as the small thrombi extend toward the larger vessel.

A determination of the extent of the thrombosis in a case of hemorrhagic mastoiditis cannot be made by inspection of the parts or by the course of the disease. Since the sinus is invaded by the intravenous extension of the thrombi into its lumen, the sinus wall is usually normal in appearance, even where an extensive involvement, of its interior exists. There are no granulations or discolored areas on the wall to make one suspect the presence of a thrombus within the sinus. Therefore one must not look for the same indications for sinus and jugular surgery in this type of mastoiditis as are found in the coalescent mastoiditis. In the hemorrhagic mastoiditis, the estimation of the hemoglobin and red cells furnish the most positive indication as to the extent of the thrombosis. Since the causative organism is hemolytic and is lodged within the circulation from the outset, a progressive lowering of the hemoglobin percentage and of the number of red cells is noted from day to day. After the diagnosis of this type of mastoid disease has been made, the hemoglobin and red cells should be estimated daily. Operation is indicated as soon as the lesion is recognized. Early operation will succeed in eradicating all the infected thrombi in the mastoid venules and thus prevent further extension of the infection into the sinus. Where the simple mastoidectomy has been sufficient to eradicate the disease, the sepsis stops promptly and the reduction of hemoglobin and red cells ceases. On the other hand, the failure of the surgery to remove all the thrombi is marked by a continuation of the sepsis and by a progressive diminution in the hemoglobin and red cells. The latter finding furnishes the most valuable guide as to the extent of the thrombosis. After

simple mastoidectomy, a continuation of the reduction speaks for involvement of the larger venous channels, and surgery on the sinus and jugular vein is then indicated

In the general treatment of otitic systemic infections, I have obtained the best results from the following procedure. After the blood vessel surgery has been performed, the daily blood examinations are continued. Where the hemoglobin percentage continues to fall despite the sinus surgery and reaches a point below half of normal, I employ transfusion of whole blood by the direct method. The amount varies with the individual patient. In estimating the hemoglobin loss, it must be remembered that the normal for infants and very young children is not one hundred per cent, but closer to sixty-five or seventy per cent, and the percentage of hemoglobin obtained in these little patients must be considered proportionately. An immediate increase in the hemoglobin and red cells is noted after transfusion. Should the hemoglobin percentage again drop below half of normal, another transfusion is given. You will note that transfusion is employed to replace lost hemoglobin and red cells and not to furnish antibodies. The latter is incidental, although it is, of course, valuable where it occurs. If one but remembers that the hemolytic organism destroys the hemoglobin, and that it is this marked anæmia which permits the bacteremia to overcome the patient's resistance, the use of transfusion for our purpose will be understood. By relieving the body of the necessity of replenishing the lost hemoglobin, its energies can be devoted to the for-

mation of antibodies and the localization of the general infection

The white cell count is valuable only in determining the outcome of an otitic systemic infection. Where the patient is successfully combatting the infection, the total number of white cells is high, usually above fifteen thousand, and the percentage of polynuclears is rarely above eight-five per cent. We know that the total number of white cells in the blood is evident of the ability of the body to overcome infection. The percentage of polynuclears in acute infections is high and is indicative of the presence and strength of the infection. It is the actual increase in the number of white cells as a whole that is helpful in overcoming sepsis, and not the relative percentage of polynuclears. A high polynucleosis without a proportionately great increase in the total white cells is indicative of an infection over which the body is gaining no control. McKernon has studied this phase of the subject and has determined the relationship between the total leucocytosis and the percentage of polynuclear cells. In otitic systemic infections, McKernon's resistance charts furnish a guide in prognosticating the outcome of a given case.

I have had very little success with any of the serums, vaccines or dye products in my cases of otitic sepsis. Transfusion, intelligently used, as a supportive measure, coupled with the outdoor treatment and typhoid diet, furnishes us with the best method of treating these cases after operation to remove the septic focus in the temporal bone.

THE GESTATIONAL GLAND*

By ROBERT T. FRANK, M.D., NEW YORK, N. Y.

WE have (1) given the name of "Gestational Gland" to the three organs which produce or contain the female sex hormone. This hormone is found in the ripening follicle, in the corpus luteum, and in the placenta. These apparently dissimilar structures have a continuous and coordinated physiological function as well as action.

THE FEMALE SEX CYCLE

With the onset of the first ovulation a regular cycle occurs in the adult female. The cycle may be subdivided into (a) the fertile or complete cycle which begins with ovulation and terminates with puerperium or lactation, and (b) the infertile or abortive cycle where no opportunity for impregnation has arisen, or where nidation has failed to occur.

(a) *The normal, fertile or complete sex cycle* begins when the ripening follicle stimulates the uterus, especially its mucosa, to produce the pre-gravid (in the human often mis-called the pre-menstrual) hyperplasia. This hyperplasia is the physiological preparation for the proper embedding place for the ovum. When ovulation occurs the potent follicle fluid is poured out into the peritoneal cavity, is there rapidly absorbed, and exerts an intensified action on the uterus. The fallopian tube, too, at this time, as Corner (2) has shown, has a stronger peristaltic wave than at other times. This increase in motility which is also due to the female sex hormone as we (3) have shown, transports the ovum towards the uterus. Impregnation normally occurs in the fallopian tube, the impregnated ovum which is already undergoing segmentation, reaching the uterus at a time when the egg's surface has acquired a lytic or dissolving action. The segment-

* Read at the Annual Meeting of the Medical Society of the State of New York at New York March 31 1926

ing ovum therefore readily makes its bed in the prepared (pregnand) decidua. This decidual reaction is entirely dependent on the hormonal action of the corpus luteum as Leo Loeb (4) has demonstrated. During pregnancy the corpus luteum continues to secrete the female sex hormone for some time but at an early period of gestation, the covering of the growing ovum, namely the chorio-epithelium, which later localizes as the placenta, likewise produces this hormone, first adding to and later replacing the corpus luteum secretion. Thus the tubular tract (as well as the mammae) is continuously stimulated throughout pregnancy by the large amount of the female sex hormone that reaches it and is thus enabled to undergo the tremendous hyperplasia necessary for successful pregnancy. Whether it is the fetus or the chorio-epithelium which causes the corpus luteum to persist for such a long time during pregnancy, is unknown, but we do know that after a critical period, which varies in different species, the ovaries as well as the corpus luteum of pregnancy may be ablated without interrupting gestation (Hartman 5).

(b) *The abortive or infertile sex cycle* results when impregnation does not take place. The pregnand growth of the uterus, under the stimulus of the ripening follicle, is intensified at the time of ovulation and the formation of the corpus luteum with consequent continued secretion of the female sex hormone takes place exactly as in the beginning of the fertile cycle, but as the unimpregnated ovum rapidly disintegrates and no chorio-epithelium develops, the corpus luteum involutes and loses its function shortly after ovulation has occurred. Consequently the tubular tract and breasts, no longer stimulated by the continuous and massive secretion of female sex hormone, rapidly undergo regression, which in the lower animals is marked by a simple atrophy (characteristic of diestrus) and in the primates shows itself in necrosis and exfoliation of the endometrium, which is accompanied by the external bleeding, known as menstruation.

When the ovaries no longer produce enough ripening follicles, the genital tract as well as the breasts are no longer supplied with sufficient circulating female sex hormone. Consequently the cyclical phenomena become more irregular and less marked until they entirely cease, which time corresponds with the senium or menopause.

PHYSIOLOGICAL PROOF

What has preceded is a resume of the most essential sexual phenomena. The normal phenomena can be reproduced to a striking degree by artificial means (substitution). Injection of potent extracts of follicle fluid, corpus luteum or placenta will induce

- (1) premature puberty (6),
- (2) will cause the stimulated infantile animal

independently to continue in a sexually mature state (7),

(3) will, in the spayed female, cause the external and internal genital and mammary changes of estrus (8) as well as the willingness to copulate (9),

(4) in larger dosage produce the uterine and mammary hyperplasia of early pregnancy (pseudo-pregnancy) (1).

CHEMISTRY OF FEMALE SEX HORMONE

A comprehensive resume of the chemistry of the female sex hormone will be found in the article by Frank and Gustavson (1). The active principle has never as yet been completely purified. We have, however, obtained it free of phosphorus, nitrogen, and cholesterol. Thus freed it contains merely carbon, hydrogen, and perhaps oxygen, and shows as a clear oily substance which deteriorates on exposure to oxygen and light. The hormone resists high degrees of heat and treatment with strong acids and alkalis. The active principle is an unsaturated body. It is soluble in all lipid solvents and in the presence of certain extractives of the placenta.

Our (1) researches have shown that the claim of certain investigators to have obtained the female sex hormone in pure form is unjustified.

PHARMACOLOGICAL METHODS FOR TESTING THE POTENCY OF THE FEMALE SEX HORMONE

- 1 (a) Production of pubertas precoxa
- (b) Activation of the uterus of castrates

These two methods have been used for many years. The rabbit is the best animal for this type of study.

2 Vaginal smear method used on castrated rats and mice.

Stockard and Papanicolaou (10) pointed out variation of the vaginal spread in guinea pigs. Long and Evans (11) showed this in white rats. At estrus the spread contains only squamous cells. During the other stages leucocytes are found. Allen and Doisy (12) introduced this method into the study of the sex hormone.

3 Contraction rate of the isolated uterus of the white rat.

The slow spontaneous estrual contraction and the rapid interestrual contraction was pointed out by Blair (13). It was first used to test the potency of the female sex hormone by Frank, Bonham and Gustavson (3).

By means of these three specific tests, it has been shown that the female sex hormone can be obtained alike from the follicle, fluid, the corpus luteum, and the placenta (1).

HISTORICAL

In this short historical review only the most striking landmarks will be touched upon. In

1895 Knauer (14) demonstrated that the ovaries may be separated from all vascular and nervous connex, and when transplanted into a new site, will there exert cyclical influence as before Halban (15) at will, by transplantation, restored menstruation in monkeys. This was interpreted as evidence of an internal secretion, it being assumed that a substance secreted by the ovaries found its way into the blood stream and thus reached the genital tract and breasts. In 1897 Beard (16), as well as Born (17) called attention to the corpus luteum as a gland of internal secretion. Fränkel (18) by experimental means showed that the corpus luteum was necessary for the continuation of pregnancy. Leo Loeb (19) went further and demonstrated that the yellow body activated the maternal uterine decidua as well as inhibited the ripening of follicles. Bucura (20) emphasized the importance of the growing follicle in producing uterine changes.

A different and more easily interpreted method of demonstration was found in reproducing phenomena by substitution. Iscovesco (21) 1912, with alcoholic extracts of ovary produced hyperplasia of rabbits' uteri. In 1913 Fellner (22) showed that alcoholic extracts of placenta produced estrual changes in the tubular system and breasts of rabbits and guinea pigs. In 1922 Frank (23) showed that similar estrual changes could be obtained in immature vaginal rabbits by the injection of follicle fluid obtained from both pregnant and non-pregnant animals.

In 1925 Frank, Gustavson and Weyerts (24) as well as Loewe (25) by specific tests demonstrated the presence of the female sex hormone in the circulating blood. This is the first time that a true hormone has been demonstrated by specific means in the circulation and is a real substantiation of the hormone theory which hitherto had been taken largely on trust.

DEDUCTIONS

In spite of the tremendous strides in the elucidation of the phenomena of sex as found in the female, exemplified by this brief summary of some of the most striking and important researches, the direct application to therapy has been disappointing. The reason for this is that the female sex hormone is present only in considerable dilution in the gestational gland (that is follicle fluid, corpus luteum, and placenta). During extraction a large amount of the hormone appears to be either lost or destroyed. Finally, the sensitiveness of the active principle to oxidation renders its preservation difficult and short-lived.

As I have repeatedly claimed (26) and as has been shown by others (27) the many preparations upon the market are physiologically inert. Consequently the results reported are variable and unconvincing. There is, however, every prospect

that the immediate future will see a female sex hormone applicable to therapeutic use. Such a preparation will be found to be powerful and, I fear, also poisonous just as experience with insulin has shown this drug to be powerful and toxic if not correctly used. A potent preparation of the female sex hormone will produce a rapid hyperemia and hyperplasia, showing itself in an immediate growth of the uterus, succulence of the vulva and vagina, as well as increase in size of the breasts, and thus should prove of immense value in cases of infantile and atrophic genital tracts, and in the treatment of general infantilism, if begun before puberty. However, I predict that until such a female sex hormone is exhibited in the proper quantity and to the proper individuals, much harm may be done by its reckless use. Quite the contrary obtains with the present inert materials which are sold under various trade names and which may be given without fear of doing harm, except perhaps by spoiling the digestion and which, in a few cases, may produce an excellent psychic effect on the impressionable.

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POSTGRADUATE INSTRUCTION IN THE SEVENTH DISTRICT BRANCH

By BENJAMIN J SLATER, M D, ROCHESTER, N Y

A report given at the annual meeting of the Seventh District Branch of the Medical Society of the State of New York, held in Geneva, on September 29, 1926

IN May, 1923, a course of lectures was given at the home of the Rochester Medical Association on Prince Street covering Pediatrics and Obstetrics. The period was for two weeks and the lectures were given at 4 30 P M, each day. They were given under the auspices of the New York State Department of Health and the Medical Society of New York acting through the Monroe County Society. Under the provisions of the Sheppard Towner Act, which is a Federal enactment, the State Board of Health may make certain contributions to lectures on maternity and child hygiene. It was under the provision of this act that the lectures were given.

The lectures had three distinct advantages

A—To the community

B—To the physicians as a group

C—To the physician as an individual

A-1 The fact that the Sheppard Towner Act has been passed is evidence of the public confidence in this type of endeavor

2 The public gains increased confidence in the physicians when it has knowledge that as a group they are trying to better themselves by bringing the best of the profession to lecture to them

3 The public has a right to expect that physicians will keep up to date. These post graduate courses are evidence of the physicians desire to do so

B—The physicians as a group are helped

1 There is great emotional value in bringing a great group of physicians together. College days are renewed. The relation of teacher to student is re-established and especially among the older men these lectures awaken bygone memories which they have treasured

2 The lectures, through the fact that they are largely attended, developed a class consciousness in physicians. While physicians have always been strong individualists, they have many times missed the value of mass action. Any group bringing them all together under such auspices is a good thing

3 In exact proportion as trips to Vienna, Paris and London help the individual and give his patients more confidence in his work, so do these local courses make the work of the practitioner easier

4 There is a spirit of comradeship developed among the various groups in the city. The

largest membership was two hundred and two. The average for the first week was one hundred and thirty-eight, and one hundred and eleven for the second week. In Geneva the course of lectures previously given averaged an attendance of thirty-eight. This was considered very good. Wayne County had the best attendance. There was seventeen members out of thirty-six. Ontario averaged fourteen. Yates seven.

5 The plan of inviting only outstanding practitioners and teachers is a good one, for it brings to the medical men only physicians who have had a large experience and who actually know how to teach. There was not too much speculation in theory, but a thorough explanation of practical problems with their solution.

C—The physician as an individual gains through increased knowledge. The subject was of interest to every practicing physician. Twenty-five letters were written to representative physicians in Rochester. Without exception there was no criticism. On the contrary there was high praise. There was no tendency to make suggestions aiming to betterment, for everyone seemed to think that they were very well as they were planned.

It is of course impossible to bring such a large number of physicians together under such able professional tutelage and not derive great benefit. With one exception the lectures were very well given, very practical, and carried an important amount of knowledge to the physicians.

By and large these were the most largely attended medical meetings ever given in Rochester. The whole occasion seemed to be full of interest, and all in all the members of our Society felt in Rochester that they were entering a new epoch of usefulness to the members.

DISCUSSION

Dr George M Fisher, President of the Medical Society of the State of New York, spoke of a practical way of arranging a course of instruction for a county society. He said that a plan that had worked well wherever it was tried was that the Secretary of the County Society should send a questionnaire to the members asking them to indicate their first, second and third choices of subjects, and then to adopt the subject that was named by the greatest number. The State Committee on Education would provide the instructors.

POSTGRADUATE EDUCATION*

By H J NOERLING, M D, VALATIE, N Y

THIS must of necessity be termed that knowledge striven for and acquired following graduation from a medical school, where only the foundation of medical learning can be laid

With the rapidly striding advance which medical science has been making, it must needs be a trying problem to arrange a medical curriculum which will give the student a solid working basis for his chosen profession. The present day trend toward specialism in all of the branches of medicine is rapidly advancing so that the first thought of the student upon entering college is to seek that particular branch of medicine most suitable to his own ideas, desires and capabilities. Thus we find him, after graduation, and after serving his internship, either taking a post-graduate course in some large medical centre, or allying himself with an older physician doing the same work toward which his ambitions trend. What is the result? Keeping the physicians grouped in medical and civic centres where access to laboratories and hospitals is obtained, and few if any settling in outlying sections where "the old country doctor" is fast waning in age and numbers, and where his associations and activities must soon be but a thought of the past in the minds of all except those who have grown old with him and must soon follow him into the great "beyond."

If I may speak of one who was perhaps known to many here, either personally or thru patients referred to him, I can render a fitting tribute to the memory of one of our profession, a member of long standing in my own County Society, who has stood out as a remarkable example of the "old country doctor" unselfish in rendering aid professionally and financially, often cheering the holiday season of the poor by gifts to the children, food and clothing to the family, spending night after night on his rounds winter and summer, getting cat naps between calls either in sleigh or buggy or later in his auto, serving rich and poor alike, often doing his own surgery (some of it major) back in the hills by lamplight, understanding the mental and spiritual as well as the physical ailments of his patient, fearless in his work when he knew he was right, and withal finding time for study and advancement, I refer to the late Dr I C Washburn with whom I was most intimately and thankfully associated during the last few years of his life. When at his bier, I watched the line (passing by for over an hour) getting one final look at his remains,

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I trust that in my zeal, I may not be misunderstood, rather I want to awaken that interest in the need of better or rather more adequate medical service to the rural communities, so that men answering the call to this type of work may not feel that they are shut off from medical advancement and may have just as good as their city brothers through some form of continued medical education.

In contrast to my past remarks, may I cite an incident in my own experience. I was considering taking into my practice a recent graduate. In discussing compensation adequate to the work required, a statement was made that owing to his more recent training, he knew a great deal more than I did, was more up to date. For a minute, I felt perhaps he was right, and yet a thought came back that I had had fifteen years of general practice and by my own efforts had kept fairly well abreast of the times with access to laboratories and visits to hospitals though perhaps not familiar with the actual technique of tests employed in laboratory diagnosis. I trust and know this feeling is not general toward rural practitioners, but it lends a possible trend of thought that medical work in rural sections becomes rutted and behind the times.

With this in mind, the first thought is that individual study and practical experience are the first steps in post-graduate education. If thirsty, man or animal seeks water to quench that thirst. So in medicine, wherever he may be, the practitioner can thirst after knowledge, and if he really wants it, can get it. A training in general practice meets all the specialties: surgery, medicine, obstetrics, skin, pediatrics, and so on thru the list. Further than that, it trains a man into a closer relation with the social, economic and mental problems of the individual, placing the doctor in the confidence of his practice. Inspiring confidence, belief in the doctor's ability to correct the ailing body, must be an essential part of perfect understanding between the

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* Read at the Third District Branch Meeting, at Albany N Y, September 25 1926

sick and the medical profession, a feeling even seen when dealing with children. The general practitioner need not fall into a rut allowing the advance *ideas of medicine* to pass ahead of him. There are at his hand too many opportunities for help, periodicals, books, health courses, medical society meetings, hospitals, clinics and so on.

This brings the second thought that, following personal experience, he may gain knowledge through the experiences of others.

1 Reference library. This should be a part of every man's office equipment, books written upon the experiences of men well up in their individual specialty whose authority is fully recognized by the medical profession as a whole. But here, these books should be of a clear, concise and not too technical type, easily referred to and understandable to the average man.

2 Through weekly and monthly medical journals, digests of newer ideas advanced before incorporation into reference books.

3 Thru health courses offered by the State Departments of Health reviewing and criticizing work accomplished in preventive medicine.

4 Through attendance at State and County Medical Societies where there is always something new or unfamiliar brought to attention.

5 Through so called clinical clubs where certain groups gather socially and to relate and criticize individual mistakes and unusual cases.

6 Through special courses of lectures and dispensary work in local or special teaching centres.

I believe the medical schools should make an effort to lay the foundation of our medical education one for general practice rather than along scientific lines, real practical diagnosis and to the point, thrusting upon the student the responsibility of seeking his own specialty after graduation, allowing him to qualify as a specialist after a certain prescribed course of study. Apprentice him to one or two years with a general practitioner after leaving his internship, cutting down the premedical requirements. In this way, the older man's brain is dusted by the training of the younger man and the younger man becomes more closely associated with the actual practice of medicine.

For the general practitioner provide certain courses of study or lectures, not too burdensome as to time required, bringing out the important advances and changes in ideas proven during the year. At this point (not using this opportunity for any advertising),

I want to bring Tice's Practice of Medicine to your attention. Many may be familiar with this work. It is a loose leaf system of volumes, kept up to date yearly by the publisher, renewing old pages with the latest changes, also a monthly digest of all the International Journals, and finally a consulting bureau to whom one may send problems and receive copies of recent articles referring to the particular subject desired, placing before one the latest accepted and unaccepted medical ideas, a work for which as a general practitioner I have been craving for some time, often finding my bound volumes too burdensome to study.

During the past year, the New York State Department of Health in conjunction with the State Medical Society, offered each County Society a series of lectures by men thoroughly conversant with their individual work. This is a good start, though I believe I am safe in saying that the work was not enthusiastically taken up throughout the State. In Columbia County, those who were able to attend all or even part of this course certainly enjoyed every bit of it and hope for a continuation.

This is a step along lines carried out in other countries. Before the war, Germany offered so called "vacation courses" of four weeks duration twice a year in Berlin, dealing with practical problems for the general practitioner. Similar courses were conducted in Paris. England has the "Fellowship of Medicine and Post-graduate Association," a member paying a fee, entitling attendance at lectures given by specialists. In Canada, post-graduate courses are offered in two ways.

1 Courses conducted within teaching centres, some leading to a degree, others providing development toward specialism.

2 Extension lectures similar to the course of lectures in New York State.

In conclusion may I summarize.

American Medicine must advance to and beyond the plane set by the Old World countries. We should have the best possible post-graduate opportunities for our own men. Give the student a common sense, practical foundation in college, offering special study afterwards for the attainment of specialism. Apprentice the *new men* to general practice similar to requiring a hospital internship.

Provide adequate and interesting courses of study yearly for the general practitioner which will either coax him in or make it compulsory for him to freshen up his medical knowledge.

Preserve the good old name "Doctor," inspiring and educating the public to cooperate with him in conserving health for in the conservation of health must indeed lie the strength and wealth of our own Great Nation.

AUBURN'S EXPERIENCE WITH TOXIN-ANTITOXIN

By GEORGE C SINCERBEAUX, AUBURN, N Y

A report given at the annual meeting of the Seventh District Branch of the Medical Society of the State of New York held in Geneva, on September 29, 1926

THIS report of our experience with toxin-antitoxin in the City of Auburn, was written from the standpoint of the general physician. The immunizations were begun in 1922, when the work, at least outside of the big centers, was in its infancy, and it was no small task to sell it to the medical men and the public as well.

The use of Toxin-Antitoxin was recommended by Von Behring in 1913 and was first carried out extensively by Park and Zingher in New York. Dr. Sears, the District State Health Officer, thoroughly believing in this prevention of diphtheria and with the State of New York Health Department ready to help demonstrate its efficacy, selected Auburn for its trial, first because of the considerable number of cases of diphtheria which persisted in spite of the ordinary measures for its suppression, second, because of its size (a third class city), and third, because of the variety of its industries and its diversity of nationalities and home conditions. We had a school population of over 7,000.

The first problem was to sell the idea to the physicians, and then to the public. This was done through the city and county medical society in order to enlist the interest of the doctors. The people were reached through a public meeting at which Dr. Zingher of New York told of the work done there. It goes without saying that the physicians of Auburn were solidly behind the project.

After the preliminary interest was secured, Dr. Sears, backed by the medical men, went to work on what seemed to be a thankless job. A great deal of publicity was given to it through the papers and in meetings where it was possible. Every child, first in the public school and then in parochial schools, was listed, and cards were sent to each parent who had a child in school, for consent to be Schicked and immunized. The result was that 58 per cent of the pupils in the schools were allowed to be tested.

To give you an idea of the prevalence of diphtheria in Auburn, I will give you the number of cases by years previous to this time, so that you may more accurately see the need of this work.

Year	No of Cases	Deaths
1915	55	6
1916	39	7
1917	49	9
1918	32	7
1919	54	6
1920	90	19
1921	131	13

By these figures you can see there was a real problem of life and health, to say nothing of the

amount of time lost in school. The work of Schicking and immunizing was begun in February, 1922, and over 50 per cent of the children were Schicked and 90 per cent showing positive reactions were immunized. If by taking the 40 per cent, or over which were not tested or immunized as a control, striking results may be shown. In those cases not immunized there were 80 cases of diphtheria with 13 deaths in that year, while in the negative to the Schick test, or immunized, there were 5 cases of diphtheria diagnosed clinically and by the laboratory, out of which 4 were later proven to be Vincent's angina in diphtheria carriers. The other one occurred in a child too soon to have obtained his immunity.

Campaigns have been carried on each year since that time until the percentage of immunized children in the school is over 85 per cent with these results:

Year	No of Cases	Deaths
1922	98	15
1923	43	7
1924	22	1
1925	18	0
1926	6	0

The last death from diphtheria was in March 1924. In the six cases so far this year, none had been immunized.

Our first question in seeing a red throat or one which has the spotted throat of a follicular tonsillitis is, have they been immunized? and, if they have while we take cultures to play safe, we do not feel they are going to have diphtheria—still we play safe and take cultures.

I remember a case of one of my own patients, a boy of 8 years, who had been immunized a year before. Six months later he was Schicked but was positive. His throat was red and had some follicles present. A culture was taken and was positive, but yet he never developed diphtheria clinically. This was a case of a diphtheria carrier on a follicular tonsillitis. His Schick test taken later was shown to be negative, one year after immunization. It would seem that he would have developed a diphtheria with the condition of his throat had he not been immune.

Our work now is with the pre-school children. If we can keep them immunized, the problem has been solved, but we must keep everlastingly at it. If we do not, in a few years there will be the same problem again.

It was not so long ago that every child was obliged to be vaccinated before entering school, or at least high school. Yet today in spite of the fact that we are supposed to be an enlightened nation, we stood third among the nations as

having the largest number of cases of smallpox

The public opinion in Auburn, and I suppose in other cities, is a great deal different from what it was in 1922. Today parents are bringing their children to us and asking us to immunize them, but it is up to us doctors to keep up the enthusiasm. In regard to Schicking all cases, there is a tendency not to Schick children under seven years of age, or some say ten, before immunizing. Park says it may be omitted before immunization, first, because two-thirds of the children will require immunization in any case, second, because it is uncertain whether a negative Schick reaction is the result of transient immunity transmitted from the mother, or is produced. It has been found that in Polish or Italian children the percentage of positive reactions is much less than in English speaking children. In Auburn, Polish children showed 26 per cent positive, Italian children 36 per cent, while the English speaking about 82 per cent. This would indicate that it would save a lot of toxin-antitoxin if the foreign children were Schicked before immunization.

All children should be re-Schicked in from six to twelve months after immunization. Reviewing some of the cases here who did not show immunity until one year, it would seem that the one year interval would be the safer. I cannot give you the number of cases that were re-immunized. Among the first number immunized, 80 per cent were negative to the Schick, 319 were given the second immunization dose, and 174 were re-Schicked and 5 were found positive, 3 of whom were given a third immunization dose and all were negative.

In all the number of cases Schicked, or immunized, there was not a single severe reaction or infection.

From the results of what we have done in Auburn, we concluded first, that diphtheria is preventable, second, that immunizations can be done safely, third, that it is important to keep the pre-school child immunized, fourth, that Schicking may be omitted in young children of English speaking parents, but should always be done after immunization.

DISCUSSION

Following the paper of Dr. Sincerbeaux, there was a general discussion consisting largely of questions and answers, regarding points of which a general practitioner would wish to be informed.

1 At what age should the toxin-antitoxin immunization be given?

Ans It can be given at any age. Park had given it to 2,000 three-day old babies with no bad effect whatever. Babies develop immunity more rapidly than older children or adults.

2 Is there any danger following the injections of toxin-antitoxin?

Ans The source of possible danger would be

1, the toxin in the mixture, and 2, the horse serum which contains the antitoxin. The dose of toxin is now so extremely small that it does not produce even a soreness at the place of injection. Where formerly slight soreness developed, the reduced amount of toxin now given does not produce even a transient soreness.

As to the possible danger from the antitoxin that is given, the dosage is that which would be given to desensitize a susceptible patient. It is safe even if the patient should be sensitive to horse serum. Moreover, giving an immunizing dose may forestall the necessity of giving a large dose of antitoxin later in life.

3 The Schick test, shall it be used as a routine measure?

Ans Most children under the age of ten will give a positive Schick test, and so the standard practice is to give the toxin-antitoxin in all children below the high school. However, when the Schick test is given three months after the toxin-antitoxin, it will reveal those (about 5 per cent) who fail to produce antitoxin and who therefore need a second dose.

4 Is this Schick test dangerous?

Ans Never.

5 Who should give toxin-antitoxin?

Ans The only persons who can give it are physicians. Nurses and laboratory workers cannot give it legally.

6 How long does immunity last after toxin-antitoxin?

Ans The toxin-antitoxin has been given for only ten or twelve years, but immunity lasts for that length of time. The group showing the greatest death rate is that of children under five years of age, and the next group is that of school children. If the immunity lasts for only a few years, the children who are immunized will be protected during the years when they are most exposed to the diphtheria.

7 What is the duty of a physician in giving it to his private patients?

Ans It is entirely ethical for a physician to offer to give the immunizations to the children of his families, and to seek to educate the parents as to its benefits. Moreover the feeling is growing among physicians that liability may lie in a failure to give toxin-antitoxin.

8 What are the relative duties of lay organizations and physicians in regard to toxin-antitoxin?

Ans Individual physicians are to give toxin-antitoxin to those who need it to encourage parents to use it on children, and to cooperate with the school authorities in immunizing the pupils of public schools. Lay organizations and boards of health are to conduct educational campaigns in order to instruct people regarding toxin-antitoxin and to persuade them to permit its use.

PUBLIC HEALTH ACTIVITIES IN THE COUNTY MEDICAL SOCIETIES OF THE FOURTH DISTRICT BRANCH

By E HARRISON ORMSBY, M D, AMSTERDAM, N Y

A report given at the annual meeting of the Fourth District Branch of the Medical Society of the State of New York, held in Plattsburg, October 1, 1926

AS the family in the home is the unit of civilization, so is the county society the unit of organized medicine. As the home is the place where is laid the foundation for teaching religion, morals and education, so is the county society the place from which knowledge of health and disease should be distributed to the great group of family doctors. Evolution in medicine progresses rapidly from one major discovery to another, as the tireless and relentless research workers bring to us each year their increasing discoveries from the laboratory, the hospital, and the college, and deposit them in the laps of our several county, district, state and national societies for distribution and application. A great function of a county medical society is that of distributing knowledge to its members by some organized system such as the graduate courses promoted by the Medical Society of the State of New York. At present preventive medicine is being emphasized by thoughtful leaders in medical societies, and the movement is as important as any of the past medical achievements. To rid civilization of the dire results of bacterial, mechanical, thermal, or chemical invasion by prevention is the simplest and easiest way to promote health and prolong life that can be found. This must be done by organization and practical education and is best accomplished by perseverance in work and effort. The organization best adapted to do this work is the county society. The favorable response of the county medical societies is demonstrated by the prominent place given to preventive medicine in the programs of the meetings of the District Branches. On every such program we find papers dealing with public health problems that are real live, up-to-the-minute, worthwhile issues. Every county society throughout the State seems to have entered this new field, with some branch of it peculiarly and particularly adapted to its community needs singled out for ultimate solution and consummation. Our own district composed of eleven counties in the State has been no laggard.

For a long time physicians have been wagged too much like the proverbial dog's tail by all sorts and kinds of lay societies and organizations who, through the press and monthly publications, and by weekly runs and one night stands, attempt to establish in the public mind the standard of right and wrong in the physical field. It is now high time for doctors to take their light out from under the bushel and let

it shine forth so that their good works may be seen.

Dr George M Fisher, President of our State Society has said that there is an obvious increase of interest on the part of the public in the prevention of disease as manifested by the increasing number of agencies with programs calling for education of the public, and the completion of these programs calls for assistance from the trained physician, and we must be prepared to meet the demand. How true this is! But I will go a step farther and say that we should be the inspiration for these organization, and that we should lay out their programs, and that we should lead all the way.

To accomplish this purpose of leadership we must organize our society in such a way as to stimulate each individual member to give to the organization the best there is in him. This stimulation comes about by interesting each member and can be arrived at through post graduate education on modern subjects, by means of courses designed for real hard study. Such a course was put on by our society last spring and for a full report of it I refer you to the NEW YORK STATE JOURNAL OF MEDICINE, vol 26, No 16, p 725, dated August 15, 1926, and I urge all of you if you have not already done so to read this account.

The subject chosen for a course in graduate medical study should be live and modern, and suited to the particular community in which it is given. Such a course will interest, stimulate, educate, and enlighten the individual member. After he has become interested and educated, he will be ready to spread the news by both word and deed. This news, as concerns the public, is along the lines of public health and so a public health committee is necessary in the county society and should consist of all the members in the society engaged in public health work, especially health officers. The chairman of the committee in Montgomery County is a District State Health officer, and our committee numbers ten. There is no limit then to the scope of work available, or the men to further it. Sub-committees can be appointed to take charge of such activities and so-called campaigns as periodic health examinations, better milk and water supplies, diphtheria prevention or toxin anti-toxin campaigns, tuberculosis prevention, venereal disease prevention, child welfare and prenatal work, school medical inspection, smallpox vaccination, typhoid inoculation, cancer prevention, clinics for children of pre-school age, and

anything and everything else pertaining to the elimination of disease and promotion of better health. Several of these activities can be combined, and such combinations will save time and money. Let us take, for instance, the clinics for examination of children of pre-school age. Montgomery County has taken this as another of its public health activities for this year. The clinics are organized as follows:

The committee or its designated representative visits the political head of a community—mayor of the city, president of the village, or supervisor of the town, and explains what the county society is striving for and asks for an allowance in the budget to defray necessary expenses. Having obtained this, the health officer of the community concerned designates a clinic date, one in the spring and another in the fall. Prior to the time for the clinic to be held, the public health nurses are sent out to canvass and make personal interviews at homes where children of pre-school age are located and solicit attendance at the clinic. Some member of the society from a distant part of the country, and designated by the public health committee, arrives at the proper time and conducts the clinic. He examines the children for remedial physical defects, and records his findings, together with recommendations on an individual card kept for the purpose, and the information is conveyed to the family physician where one is specified, otherwise to the family. At the same time these physical examinations are made, the first dose of toxin-antitoxin, or typhoid inoculation is given, or vaccination against smallpox performed. The later inoculations or vaccinations can be given by the family physician or health officer. Such a procedure is being successfully operated in our county and it can be worked out in any and all counties equally well. All other public health activities can be handled in similar manner and by so doing the county society becomes the real leader in public health in its own community, setting aside the fear or threat of State medicine, putting to rout all the quacks, educating and enlightening its own people in a practical and scientific way, and making itself the real authority and power in all matters of health in the community.

While I will not go into detail concerning the activities of all of the county societies in the district, I will outline their important ones and suggest that at the proper time representatives from each society tell us more in detail concerning these.

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so that this disease should soon pass from our midst.

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Saratoga is dealing with periodic health examinations.

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Clinton and Essex Counties have joint committees working with the board of supervisors and public health agencies, and all the county societies are alive to the importance of this new era in medical leadership.

DISCUSSION

Dr. S. W. Sayer of Gouverneur, District State Health Officer, described the child welfare work that was done in St. Lawrence County under the leadership and direction of the St. Lawrence County Medical Society. At the conclusion of the pediatric course that was described in this JOURNAL for August, 1925, page 876, the County Medical Society planned a series of clinics for the examination of babies who were presumably well. A special committee of the County Medical Society chose the places for holding the clinics and appointed local men to make the examinations. Each examining physician was paid fifteen dollars for each clinic by the State Department of Health and out of the Sheppard Towner fund. The committee required every examining doctor to be a member of the County Medical Society. Twenty-six clinics were held, each attended by over a dozen children. Over 400 children were examined. The clinics were held in the smaller places where doctors were few and local facilities were lacking. The local physicians took great interest in the work. Several bought books on pediatrics as the result of the clinics, and six doctors joined the County Medical Society in order to share in the experience of examining the children. The work was a great success and will be continued.

Dr. William Munson, District State Health Officer, spoke of the activities of the representatives of the State Department of Health in going among the practicing physicians and explaining the details of the methods of giving immunizations and of securing publicity for public health campaigns, so that the physicians will find the people and members of boards of health receptive to the suggestions of the medical men. He said that intimate contact with physicians was necessary in order to do practical preventive work along any line.

THE PERIODIC HEALTH EXAMINATION

By EARL H. KING, M.D., SARATOGA SPRINGS, N. Y.

Abstract of a talk given before the Fourth District Branch of the Medical Society of the State of New York at Plattsburg, N. Y., October 1, 1926

THE object of this talk is to present an appeal for a more general and systematic adoption of the Periodic Health Examination as a part of the routine work of the family doctor. Much has been said about "Preventive Medicine" as applied to communicable diseases, and every physician realizes his duty in that line. But the diseases which are susceptible to modern prevention include those of the heart, kidneys, intestines, joints, and in fact of nearly all the other organs. It is not possible to foresee and prevent all diseases, but there are so many that are detectable and preventable that a family doctor is justified in urging his patients to undergo periodic health examinations. Patients consult a doctor in order to get an answer to one of three questions:

1. Have I a disease?
2. Have I a tendency to a disease?
3. How may I acquire positive health?

The booklet on "The Periodic Health Examination," issued by the Medical Society of the County of New York, in 1925, emphasizes the preclinical signs of disease, and describes those conditions which are suggestive to the examiner, and lead him to make a detailed examination along certain lines. Tuberculosis and cancer are two well-known examples of diseases in which preclinical signs are usually present at a stage sufficiently early to enable the doctor to give effective treatment.

What is a health examination? It is no mere cursory glance at the patient, nor is it a judgment based on long acquaintance, for when a patient himself is unaware of incapacity or danger, much less will his friends or his doctor suspect danger.

A doctor making a health examination will consciously have in mind at least eight conditions:

1. A blank to guide him in making the examination. There is the blank got out by the American Medical Association, the one by the New York County Medical Society, and that by the Kings County Society, and there are several others developed by the medical organizations of New York State. A doctor needs a blank in order to make his examinations uniform, and for recording his findings.

2. An inquiry into the health habits of the patient in his home, his business and his recreational hours.

3. The patient's mental attitude toward himself, his family, his neighbors, and toward life in general.

4. His family history, not in too great detail, but sufficiently to throw light on general tendencies, such as tuberculosis, and "Nervousness."

5. A history of previous diseases and accidents.

6. Subjective symptoms, or what the patient himself thinks is wrong with himself or a digression from an absolutely normal condition.

7. A complete physical examination, including the neurological.

8. Advice regarding treatment. To the patient this is the most important part of the whole examination, and on it will depend its success or failure. The family doctor is in the best possible position to give the advice in such a form that it will be heeded.

Remember that a great responsibility rests upon the examiner. The patient puts himself in the doctor's hands for diagnosis and treatment in order that he may avoid future trouble. He expects advice regarding his diet, mode of living, sleeping, recreation and the other conditions which may affect his future health, and he rightfully expects that the remedy shall not be worse than the disease. A patient has his living to make, and he lives in a world full of beauty to be enjoyed. A nice balance of warning and reassurance is always difficult to maintain in giving advice.

How much skill is required to make a periodic examination? Just as much as a studious family doctor is expected to have. The average physician should be able to detect the preclinical signs and symptoms that point to the necessity of an examination by a specialist, or a laboratory procedure.

How shall the desire for periodic examinations be aroused?

The doctor must be reached through his medical societies. A movement sponsored by the leaders of a county medical society will speed up the acquisition of both knowledge and desire on the part of the individual doctors. The local doctors themselves know how to arouse interest in the work.

The local hospital is the natural health center of a community, and the natural center from which health examinations may be promoted.

Submitting to an examination himself is one of the most efficient of all means of arousing the interest of the doctor and stimulating his desire to acquire knowledge. Putting himself in the patient's place, literally and completely, will be his best training in methods of dealing with his patients. Moreover, it will prove his sincerity in what he urges his health client to do.

The time is ripe for every County Medical Society to begin an active campaign for its members to make health examinations of persons who are apparently well.

anything and everything else pertaining to the elimination of disease and promotion of better health. Several of these activities can be combined, and such combinations will save time and money. Let us take, for instance, the clinics for examination of children of pre-school age. Montgomery County has taken this as another of its public health activities for this year. The clinics are organized as follows:

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THE TRINITY OF HEALTH ORGANIZATIONS

The principles of the efficient interrelationship of the three groups of health organizations—physicians, departments of health, and lay societies—were set forth in an editorial in this JOURNAL in the issue of January, 1926. The same principles are stated in an official way in a report of a special committee to the directors of the Canadian Medical Association as recorded in the *Canadian Medical Association Journal* of September, 1926. The essential part of the report takes the form of seven propositions, as follows:

"1 That the interrelations of the Medical Profession (as a whole) with the public (as a whole) may be divided for convenience into three natural groups of activities—therapeutics, prevention of disease, promotion of health

"2 That the first group of activities, therapeutics, is by general understanding and consent the field of the practicing medical man. Here is included all diagnosis and treatment of the sick, sick clinics, dispensaries, etc.

"3 That the second group of activities, prevention of disease, is by general understanding and consent the field of the governmental (including municipal) public health bodies. Here is included all diagnosis, isolation, quarantine, and other services (except therapeutic service to the sick) which may prevent disease, and emergency preventive medicine.

"4 That the third group of activities, promotion of health, concerning the allocation of which confusion and doubt exists in many quarters, should be considered to include all medical, surgical, or nursing services (exclusive of therapeutic services to the sick) which are extended to the presumably well, including prenatal clinics, well-baby clinics, medical school inspection, periodic annual examinations, etc., whether these be for the preservation of existing health, or the discovery of unsuspected and incipient disease, also all advice growing out of such examinations, and all preventive medical, surgical, or nursing procedures which may be employed to fortify the body against future disease (preventive medicine proper).

"5 That already existing organizations, governmental or otherwise, already engaged in promotion of health as above defined, be approved and supported in so far as their activities conform with this definition.

"6 That organizations hereafter formed for the promotion of health as above defined, wherever agreeing with the above approved

outline, be actively organized by local medical associations, advised and guided, for the sake of uniformity in policy and procedure, by the provincial medical associations, and the provincial departments of health.

"7 That such local medical associations shall act always in cooperation with a well organized lay association or combination of lay associations, preferably possessing provincial or national affiliations, the lay organizations to provide all finances, and all organizations other than medical, surgical, or nursing, but all medical, surgical, or nursing professional service to be organized and conducted by the respective professional bodies."

The report suggests that the Canadian Medical Association, representing the doctors in private practice, and the Canadian Public Health Association, representing official departments of health, agree on these principles, and then present them to the great national lay public health societies for their endorsement. "Once this is done," continues the report, "then let the Canadian Medical Association in national affairs, each provincial society in its own jurisdiction, consider carefully and act energetically, efficiently, and progressively, in specific and definite ways, suitable to the local conditions, in aid of the public welfare, thus furnishing to modern public health that direct advance from the medical profession and by the medical profession which in the past has been conspicuously lacking."

"The medical profession as a whole has always performed finely and well in therapeutic services to the sick, the call now is to furnish parallel service to the well."

The Medical Society of the State of New York and its component District Branches and County Societies, have acted on these principles, although they have never formulated them in an official manner.

While the physicians of the United States are closely bound together in their county, state, and national societies, the workers in departments of health are not so completely organized unless the American Public Health Association may be considered to represent them. When it comes to the lay societies, there is still less of a cohesive union, although the National Health Council is the result of an attempt at coordination. But whether or not the principles are formulated in words, the physicians of New York accept their spirit, and are already asserting an increasing leadership in the necessary fields of preventive and promotive medicine.

EDITORIAL

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For list of officers of County Medical Societies, see JOURNAL of October 1, 1926, advertising page xxv.

REVELATIONS OF THE DISTRICT BRANCH MEETINGS

The meetings of the District Branches have demonstrated the quiet solution of the old problem of how to arouse an interest in county medical societies. The part of every program that has aroused the greatest interest has been the recital of spontaneous activities along civic lines, particularly the anti-diphtheria campaign, graduate education, and periodic health examinations. These newer activities have not come from the application of a uniform plan of action devised by a few leaders in a cloister, but they have been developed along individual lines by the members in the field according to the needs of the local communities.

These activities constitute real progress of a permanent nature, and the result justifies the oft repeated policy of the leaders of the State Medical Society—that doctors can control the public health work of a community. What has been lacking in the past has been the inspiration that comes from personal contact with the representatives of the central office of the State Society and that has been supplied by visits of the President, the Secretary, and the Executive Officer, and the intimate contacts that have been the results of the graduate courses. The county medical societies are live organizations that are benefiting both their members and the public.



MEDICAL PROGRESS



Coronaritis and Embolic Subendocardiac Infarction—R. Lutembacher relates two cases of his disease association but makes very few comments beyond the statement that it is of common occurrence as a complication of arterial myocarditis and valvular cardiopathy (*Archives des maladies du coeur*, August, 1926). The first case was largely made up of the autopsy finds while the second was better represented from the clinical side. This patient was a man of 43 with decompensation of the left ventricle. He applied for treatment for nocturnal dyspnea and received injections of ouabain with striking disappearance of the symptom. Since Wassermann was strongly positive the patient was given a course of injections of mercuric cyanide. He afterwards disappeared from the clinic but returned some months later with violent dyspnea and edema of the lungs. The left ventricle was greatly augmented in volume and but a slight response followed venesection and ouabain injections. A crisis of acute insufficiency now appeared with general anasarca and fall of blood pressure. Ascites occurred to the extent that tapping became necessary. Death took place after pericardial friction sounds and a purpuric outbreak had developed. Autopsy showed evidence of infarction from emboli in the kidneys and spleen with purpuric areas in the pericardium and intestine. The source of the emboli was a small thrombus attached to the posterior wall of the left ventricle apparently secondary to a process in the myocardium opposite the area. The microscope showed a sclerosis of the entire thickness of the myocardium but without any thinning of the ventricle wall. Coronaritis was also present with narrowing of the caliber of the vessels. The left ventricle was hypertrophied and dilated with intact valves, although the patient had presented a systolic mitral murmur.

Angina Minor—A full-blown attack of angina pectoris cannot fail of recognition by the physician or the patient, but the milder forms which have been called larval, or the "petit mal" of angina, may escape recognition unless one has the possibility of their occurrence in mind. In a lecture delivered before the British Medical Association at its meeting in Hastings in June of this year (*British Medical Journal*, July 10, 1926), John Hay calls attention to this minor form of angina and reviews its symptoms and treatment. The symptoms, like those of angina major, result from cardiovascular inadequacy. The most common is substernal discomfort or pain on exertion or exposure

to cold, it is variously described by the patient as a sense of oppression, tightness, or constriction, a feeling of weight or one of emptiness, and is usually regarded by him as indigestion, this opinion being strengthened by the fact that exercise immediately after a meal is quite likely to bring on an attack. In the early stages dyspnea may follow this discomfort if the effort is continued, but later the shortness of breath is the first manifestation, pain coming only if the effort is persisted in. The exciting causes of an attack of angina, whether major or minor, namely effort and exposure to cold and sometimes excitement, have a common characteristic in that they are such as to bring about a rapid strain on the arterial side of the circulation and especially on the left ventricle. In a large proportion of anginal patients there is either a lesion of the coronary arteries or persistent high blood pressure. In addition to the substernal discomfort there may be mild radiating pains which, when they occur, are of great assistance in diagnosis. Sometimes the pain may be erratic in character, such as a dull ache or cramp in the shoulder or arm, and this, contrary to the radiating pain, may be misleading. Another sign of diagnostic value is a vague dread or intangible foreboding, an uncanny feeling that there is something fundamentally wrong, or an apprehension which may persist even after the physical symptoms have long since disappeared.

Drumstick Fingers in Heart Disease—F. Czyhlarz, in a brief communication in the *Wiener klinische Wochenschrift*, July 22, 1926, points out that P. Marie and E. Bamberger independently reported the coincidence of clubbed fingers with thoracic disease. The mechanism was thought to be practically the same whether the heart or lung was diseased—cyanotic condition of the terminal phalanges whether from cardiac insufficiency or disturbance of the circulation from incessant coughing. The author would point out that cardiac decompensation is not essential in the causation of these cases for he has repeatedly seen these finger with perfectly compensated valvular lesions. In recent years Cotton has called attention to the frequent coincidence of clubbed fingers with endocarditis lenta, which is quite in accord with the author's own experience. Two aspects of the matter do not seem to have been discussed as yet, one being the increased length of the clubbed fingers while the other has to do with the coincidence of this alteration with aortic disease. In many cases a distinct elon-

case for over a year and assembled a series of ten electrocardiograms, collected at monthly intervals, which showed marked uniformity. They showed very decisively that contraction of the ventricle preceded in point of time that of the auricle. The mechanism, in the author's view, is akin to that of the Adams-Stokes syndrome. Contraction of the auricle is retarded by stenosis of the artery of the atrial bundle. In this patient the artery in question was given off from the right coronary and behaved as a right lateral auricular artery. It was given off 3 cm from the orifice of the coronary and the stenosis was found at this point. It represented a narrow defile, the result of a cuff of thickening due to endarteritis. Aside from this lesion the artery was quite normal. The two disturbances of rhythm, then, the Adams-Stokes and the inversion of the auriculo-ventricular sequence, are due to the same type of lesion respectively in the artery of the ventricular and in that of the auricular bundle.

Treatment of Bergeron's Stomatitis with Bismuth Locally—Bernardo Sampaio prefers the name of "Bergeron's stomatitis" to Vincent's fusospillary or ulceromembranous stomatitis, which is the commonly accepted term of stomatologists, this is probably because Bergeron gave a good clinical description of the malady in 1859. The author relates a case which he saw in November, 1925, in a boy of 8 years in which he found at first only some aphthous lesions which later developed into superficial ulcers on both sides of the tongue, accompanied by a horrible fetor of the breath. Similar lesions later developed on the mucosa of the lips but none are mentioned as occurring on the gums. There could be no possible doubt of the diagnosis which was of course confirmed by the microscope. The author applied soluble bismuth in liquid form as a drug of spirillocide properties, and improvement was at once apparent in the disappearance of the false membrane from the raw surfaces. The severe local pains which had greatly interfered with eating were also relieved, and the patient made a good recovery. The author gives an historical resume in which he shows that up to the time of Bergeron this condition had been confused with certain other very serious maladies comprising buccal diphtheria and noma. The French author recognized the autonomous nature of the malady, its ulceromembranous character, and its contagiousness. Nearly forty years elapsed before the actual nature of the disease was recognized by Bernheim and the role of Vincent's symbiosis understood. In conclusion the author pays a tribute to his Brazilian colleague Dr. Albernaz, who in 1922 discovered the value of bismuth in Vincent's angina.—*Brazil-Medico*, May 22, 1926.

Pathogeny of Gastroduodenal Ulcer and Its Treatment by Parathyroid Extract—E. Palier of New York refers to his already published theory that peptic ulcer is a sort of lithiasis of the mucosa of the gastroduodenal tract, in which the gastric acid in dissolving the calcium salt causes a defect in the mucosa—a place of minimum resistance. This theory, the writer believes, will be found to solve all of the riddles of this mysterious disease, and in conjunction therewith one may revive another which is quite compatible with it, the endocrine, in which while several glands may be at fault the chief should be the parathyroid which presides over the calcium metabolism. It is an interesting coincidence that several authors have praised parathyroid extract in *ulcus cruris* and certain other forms of ulceration. Grove and Vines, who have had much experience in the use of parathyroid, regard this substance or rather the calcium content of the tissues as an antiseptic and hence uphold the infectious origin of ulcers, but the present author regards the hypothesis of focal infection as a cause of peptic ulcer as quite untenable. He has sought to demonstrate this in another paper and refers for further details to an article on the cause of peptic ulcer in the *Medical Journal and Record* for June 6, 1922. The calcium theory of the author explains why the patient need not suffer from hyperchlorhydria to develop peptic ulcer for he may exceptionally have a deficit in stomach acid or even be achlorhydric and yet suffer from the malady. As for surgical treatment, Palier's, if theory holds, this should be limited to gastroenterostomy.—*Le Bulletin Médical*, July 7-10, 1926.

Colitis Ulcerosa—J. P. zum Busch, writing in the *Muenchener medizinische Wochenschrift*, June 25, 1926, gives an excellent account of this affection, which until recently has been regarded as excessively rare and as a possible variant of ordinary dysentery. He looks upon it as an affection of the type of appendicitis and duodenal ulcer, in that it was originally regarded as rare, although in reality it was only unrecognized. He recalls that as recently as 1908 his report of 16 cases of duodenal ulcer was looked on as a mistake, although today the disease is recognized as a common one. So with colitis ulcerosa, for a recent writer goes so far as to state that the recorded material is around fifty cases. The author himself has recognized 43 cases in the clinic. He finds it of the same incidence in men and women but rare in children. Among his cases there was only one young child, aged 2 years, in which the first diagnosis, not unnaturally, was intussusception. The usual beginning of the disease is insidious, an apparently simple diarrhoea. It is very exceptional for it to simulate one of the acute abdominal diseases.

gation is evident, not only of the terminal phalanx but of the other phalanges. The aortic affection in which he has seen the finger clubbing is insufficiency due originally to endocarditis, and he has not seen the clubbing in other forms of aortic disease. He associates the elongation of the fingers with the youth of the average patient with endocarditis, there being a certain growing impulse inherent in the tissues. In conclusion he would distinguish between two types of the deformity, one being due to stasis or passive congestion while the other appears to be the result of active hypere-mia, this second form being associated solely with aortic disease.

Epilepsy and Heart Disease—In connection with the report of a case of epilepsy in a woman suffering at the same time from valvular disease of the heart, R. O. Moon discusses the question of the interrelation of those two affections (*Lancet*, July 10, 1926). He admits that epilepsy and heart disease are both so common that they would naturally often be found in conjunction without there being necessarily any causal relation between them. Nevertheless, even if there is no direct causal connection between epilepsy and heart disease, it does not follow that the two diseases are uninfluenced by one another. The writer believes that epilepsy when associated with cardiac disease will exhibit certain phenomena which are not quite like those of ordinary epilepsy. Thus the classical onset of a fit with a cry, a fall, loss of consciousness, and convulsions is not common with the cardiac epileptics, whose attacks are characterized rather by giddiness, fits of absence of mind, and transient intellectual troubles—in a word, by psychic epilepsy. The aura, too, in these cardiac cases often takes the form of palpitations, precordial pain, the feeling of a wave of blood which rises up into the head and produces dizziness. As a rule, this condition lasts longer than the ordinary epileptic aura, it develops slowly, giving the patient time to sit down, and at times the aura constitutes the whole of the attack without giving rise to convulsions or loss of consciousness. The fits in cardiac cases are usually infrequent and less severe than in uncomplicated epilepsy. Some of the author's cases have exhibited circulatory disturbances as an aura, such as palpitations, feeling of numbness in the hands, severe pain in the cardiac region, pulsation of the cervical arteries, sensation of rapid beating of the heart with the face becoming hot prior to the epileptic fit. Another feature of cardiac epilepsy is that the attacks usually occur at night, this fact has been emphasized by Lemoine, who considers that in mitral cases the attacks are caused by cerebral congestion, and states that they may cease when the patient sits up in

bed, whereas in aortic cases the attacks are due to cerebral anemia and are cut short by the horizontal posture.

Influence of Pain on Blood Pressure—P. Martini and F. Graf write of the influence of painful dentistry on the normal blood tension and the tension of hypertonics, and arrive at the following conclusions. In addition to pain we must reckon the psychic element of fear and apprehension. In normal tension the increase of pressure varies with the severity of the pain and also with the excitability of the patients. If the pressure falls this fall is associated with syncopal symptoms and is seen only in certain groups as children and asthenics, however, extremely severe pain may cause a fall in the sound and non-nervous subject. In the nervous subject even painless intervention will send up the pressure, this also being evident before the actual intervention. If the test subject is a hypertonic he will also be found to be nervous and excitable in part as a symptom of his hypertonus and his reactions are those of the nervous subject, for even painless intervention will increase his pressure. The increase of pressure in some of these patients is enough to threaten death and a tabulation by the authors shows that figures like 290 and 270 may be attained. Hence the question of the advisability of giving hypotonic drugs like diuretin and papaverin which are able to relax the contracted blood vessels. The authors do not believe these to be indicated because they do not reach the psyche. Possibly the bromides will prove superior for this purpose.—*Muenchener medizinische Wochenschrift*, June 25, 1926.

Inversion of the Auriculo-Ventricular Sequence—In a paper with this title, read before the Paris Academy of Medicine (*Bulletin de l'Académie de Médecine*, June 22, 1926) E. Geraudel refers to an earlier paper on the Adams-Stokes syndrome in which he demonstrated the pathogenesis of a particular case in which was found a stenosis of the artery of the ventricular junctional bundle. This lesion was made responsible for the deficit in the work of the artery as shown by the slowing of the ventricular rhythm. At a later period he had the opportunity of studying a second case referred to him by Professor E. Widal, and here he again found the identical lesion. The present paper is devoted to another anomaly of rhythm, namely the inversion of the usual order of succession of the contraction of the different cardiac chambers, the ventricle preceding the auricle in this respect. The patient was a man of 63, an old syphilitic presenting an aortitis with a double murmur at the base. He died with all the evidences of insufficiency of the left ventricle. The author followed up this



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

THE YEAR'S WORK BEGINS

Your counsel, with the opening of the courts on October 4th, took up again the interesting and exacting tasks committed to his charge. Refreshed from the summer's rest he is able to approach the work with renewed enthusiasm and new determination, so far as in him lies, to vindicate and uphold the standards of the medical profession and the rights of its individual members.

It was your counsel's peculiar privilege, during his vacation on the exhilarating coast of Maine, to be thrown closely in contact with three of the outstanding surgeons of this city. He could not but regret that to the laity the opportunity so seldom is accorded of making the discovery that doctors are more than mere instruments of science—that they are splendid human beings.

It is therefore with renewed zest and interest that the writer faces a calendar of upwards of three hundred cases pending in the various courts of record of this State. Many of them are difficult and exacting, all of them are important, and each of them involves the most treasured possession which the professional man can list among his assets—his good name and professional reputation. The splendid co-operation and loyal support which the members of the State Society have given counsel throughout the length and breadth of our commonwealth strengthen and reassure him in the performance of his duties.

Realizing full well, as a member of the sister profession of the law, the restrictions sedulously drawn about the great profession of the healing art, the writer nevertheless oftentimes has wished that there were some way in which the general public could be better informed, and from this could attain to a juster appreciation and appraisal of the great service to mankind that the honorable practitioners of the healing art are rendering. Your counsel's consciousness of this fact increases in proportion to his numerous and very pleasant contacts with the physicians and surgeons throughout the State.

Only a short time ago one of the writer's dearest friends was taken with an acute attack of colicistis. His case was complicated by a diabetic tendency. Appreciating of course, far less than doctors do, the dangers of these complications, your counsel was nevertheless sufficiently aware of them to entertain the gravest possible concern for his friend. How can his feeling of appreciation ever be expressed in words for the services rendered in this matter by one of the

surgeons of this city! It was not only the skill, the experience and the knowledge of the surgeon that were reassuring but the confidence that came from perfect faith in the character and the conscience of the man who was to perform the operation. Could he pull the patient through? If he could not, then there was nothing else that human power could do.

The friends and relatives, with drawn and anxious faces, assembled at the hospital in the early morning hours and there watched while the nurses prepared the patient for his journey to the operating room. The wheel chair was brought in, the patient was wrapped in shawls and placed in this conveyance for what might well be his last journey on this earth. At the elevator we said good bye. The anxious seconds dragged—a half hour went by—no report! An hour—still no news from the front! Ninety minutes! At last the sick man, still deep within his ether fumes, was returned to his room.

With perfect consciousness of the responsibilities for the human life entrusted to his care, with a skill and knowledge acquired by long and patient study, and an experience which only years dedicated to his work could bring, the surgeon had prevailed. The patient lived and has now been restored to health.

As the writer of these pages waited in that hospital he could not but reflect how inadequate is any mere financial compensation for all that the surgeon, carrying in his skilled fingers the fears and hopes of countless friends, had done to bring about a successful consummation. And yet how often has your counsel seen similar skill and competence rewarded by an unjust and mean attack upon one who has done all within his power—all that science, skill and conscience could achieve!

With all the difficulties involved in such a program, your counsel more than ever strongly wishes that in some way the lay public could be brought to a juster, fairer and more intelligent appreciation of the great work the medical profession is performing for mankind. There is a colloquial phrase whose meaning has been dulled by too-constant use: "Selling an idea to the public." This principle, alas, all too well understood and employed by quacks and the unworthy, has never been invoked by those whose just claims to confidence and respect are never voiced. All that smacks of publicity or advertising on the

If the subject is healthy at the start he may retain his health for some weeks but in time emaciation appears. Another form sets in with fever of an intermittent type. After large ulcers form and become infected we see a late type of fever of septic nature. The course is very uncertain and death may take place at an early period, perforative peritonitis being a common complication. The prognosis is grave—about 50 per cent perish. The diagnosis may be made early through the use of the sigmoidoscope by means of which the ulcers may be seen in their small superficial stage. Autopsy shows every degree and stage of the ulcerous process and in those uncomplicated cases in which death supervenes in a few days the entire colon is deprived of its mucosa, as if shaved off with a razor. The author found not the slightest evidence of a dysenteric element in any of his 43 cases. There is nothing new under the head of treatment. Sixteen patients were greatly relieved by an artificial fecal fistula.

Treatment of Pernicious Anemia with Arsphenamine—In an article in the *Deutsche medizinische Wochenschrift* of June 18, 1926, E. Hartmann of Professor Minkowski's Breslau clinic, calls attention to the lack of finality in the treatment of this affection, for of the many plans in use none is more than a partial success. When improvement results there is always the possibility that a spontaneous remission has occurred. In the author's clinic there have been ten cases of extirpation of the spleen with but four of notable improvement. This is somewhat better than the average, for an analysis of a large material shows only 20 per cent of notable improvement. The results of ileostomy or ileal artificial anus seem in no wise superior to those of splenectomy although the case material is still very small. The hypothyroid nature of this affection is borne out in practice by one isolated example of arrest under iodine treatment, the case reported by Holler in 1924. Meagre positive results have followed the vaccine treatment in which a *Bacillus coli* strain was employed. The use of arsphenamine seems to be justified from two different angles. First it may be regarded as an extension of the ancient treatment with inorganic arsenic and in the second place recent authorities in dark field illumination have claimed that the disease is due to a minute spirochete. Long before this discovery Byrom Bramwell had claimed that salvarsan was superior to all other arsenicals and in 1913 he reported a series of 21 cases treated with this

drug in which the results were of an encouraging character. Minkowski at once instituted this treatment at the Breslau clinic, and the case material now counts up to 59, in 39 of which no other treatment was employed. The percentage of positive cases in which the benefit was notable was over 45, while that of total failure was 25 and a fraction. The highest figure for inorganic arsenic conjoined with other methods was but 30 per cent with a failure of 48 per cent, the balance in both series being placed under the heading, "slight improvement."

Curative Pneumoperitoneum in Exudative Tuberculosis Peritonitis—T. Salvatore, in an article on this subject in *La Riforma Medica* of June 14, 1926, first refers to the great superiority of laparotomy, especially in the exudative form, in this affection of the peritoneum, despite the fact that the mechanism of recovery in these cases is still an impenetrable mystery. Lauenstein ascribes it to the action of light, Mosetig-Moorhof to that of air *per se*, and Floria to the oxygen content of the air. Several authorities who hold the latter view have injected oxygen directly into the peritoneal cavity. Silvestri after extensive original researches reached the conclusion that introduction of atmospheric air into the pleural and peritoneal cavities is the best treatment for tuberculous serositis, the air to be injected after withdrawal of the serous fluid and with its amount proportional to that of the latter. Grocco and others prefer oxygen alone and in the form of oxygenated water—a 5 to 10 per cent solution of the gas in distilled water or physiological saline for lavage. In recent years all of the preceding methods have been submitted to trial and numerous good results have been reported from the use both of air and of oxygen. The author describes in detail a case of tuberculous peritonitis in a man of 38 in which there was considerable ascites. After removal of 3200 cc of exudate the author injected 800 cc of oxygen into the peritoneal cavity. There was no actual thought of curing so serious a case with this simple resource, for the patient was evidently suffering from general tuberculosis, but tapping had been indicated for the relief of the symptoms. The temporary improvement was greater than could be explained by mere tapping and the chief use of pneumoperitoneum seems to have been in retarding the return of the ascites. It was not until two weeks after the operation that some fluid could be detected in the cavity (200 cc drawn off). Death took place in a little over 3 weeks from the first tapping.

been examined daily by the physician as he had in mind the child's various illnesses and the probable effect that the toxins therefrom might have had upon the heart, and at no time was there discoverable any heart condition. At the time of his morning visit on June 16th the defendant felt that the boy had sufficiently recovered not to need any further medical treatment and had advised the mother that he would not call again unless he was notified. At about 5 15 P M on June 16 he received word that the boy had died, and upon arrival at his home had found him dead. An examination disclosed no outward evidences of the cause of death. The mother told the defendant that at about 1 30 P M the child had eaten a hearty meal and that thereafter he had gone on the roof where he had been playing for

some time. That he came downstairs at about four o'clock in the afternoon, drank a half glass of milk and was then running around the room with his younger brother, jumping upon chairs, etc. That at about four o'clock he vomited, said that he did not feel well and would lie down. That the child had then gone to bed and died suddenly at 4 40 that afternoon.

As the defendant had been in attendance upon the child for several weeks the death certificate was made by him, the cause of death being given as acute endocarditis following mastoiditis, otitis media, contributory cause, measles.

The trial of the action lasted several days and upon submission of the case to the jury a verdict was returned in favor of the defendant and the complaint dismissed.

COLLECTION OF BILL—MALPRACTICE COUNTERCLAIM

An action was instituted by a physician to recover his bill for services rendered. As happens in a great number of these actions the patient filed a counterclaim charging the physician with negligence and carelessness in his treatment.

The patient had been under the physician's care during her prenatal period. There were no complications during this time. At about the time of delivery the patient went to the hospital. The first stage of labor was protracted and the patient became tired. Proper steps were taken by the physician to resuscitate the patient and give her rest. When examining the patient to determine the extent of dilatation the membranes ruptured. Thereafter the patient made fairly rapid progress. The second stage of labor was somewhat longer than normal, the uterus not being fully dilated and the use of forceps was considered by the defendant physician and the consultant who had been called in. However, the

patient made progress in her labor and was delivered with a slight tear of the perineum, which was immediately sutured. There were no complications after the delivery other than a slight inflammation of the nipples which cleared up within a day, and the patient left the hospital the sixteenth day after delivery. The relationship at that time between the physician and the patient was friendly. He rendered several bills for his services and these not being paid he pressed the patient for payment, but was met by a refusal upon the part of the patient to pay for the services rendered by the physician.

In order to collect his bill an action was instituted. After this action had been pending for some time the physician compromised with the patient, accepting a lesser amount than his bill in settlement of his claim, the counterclaim of alleged malpractice being withdrawn and the action being discontinued.



part of the individual practitioner is and should be held in contempt and disapproval, and yet if the work of the medical profession as a whole could be better known and understood without in anywise trespassing upon any of the sacred canons of professional conduct, it is believed that it would be an advantage not only to indi-

vidual doctors unjustly assailed and accused, but to the medical profession as a whole.

No definite plan for the accomplishment of this aim is advanced, except the suggestion that it is a matter worthy of the thoughtful study and consideration of the profession and of those who cherish its best interests

MASTOIDITIS COMPLICATED BY OTITIS MEDIA AND TONSILLITIS FOLLOWED BY DEATH FROM ENDOCARDITIS

An action was instituted against a physician by an administrator to recover for the death of his decedent claimed to have been caused by the negligent treatment rendered by the physician

The patient was seven years and four months of age at the time of his death. The complaint alleged that on April 29, 1922, the decedent was operated upon for mastoiditis and remained at the hospital where such operation was performed until May 5, 1922, when he was removed to a hospital for contagious diseases as the child had contracted measles. On May 18, 1922, the patient was discharged as having recovered from the measles and a certificate was issued by the Board of Health that he was free from that disease and could return to school. It was further claimed that the child at that time had not fully recovered from the mastoid condition and was in a weak and run-down condition, and on May 22, 1922, the defendant physician was engaged to attend and treat the patient, and that he did so from that date until June 16, 1922. It is claimed that the physician was negligent in his treatment in that he failed to discover the true condition of the patient, and on June 4 advised that the child was suffering from tonsillitis and that a tonsillectomy should be performed. That the child was not suffering from tonsillitis but was suffering from diphtheria, which the physician should have known as the throat was inflamed, membrane and white patches appeared upon it. That on June 7 the physician negligently and improperly performed a tonsillectomy upon the patient, and that between that date and June 16 his treatment was negligent, careless and improper in that he made no tests for diphtheria and that the medicines prescribed by him were for a sickness or disease from which the patient was not suffering. That on June 16 the patient died as a result of the physician's improper treatment. That the cause of death was improperly ascribed as due to measles and that the physician had negligently filed the death certificate with the Board of Health ascribing the cause of death as measles when in fact the death resulted from diphtheria.

The patient was first seen by the defendant physician at his home on May 22. Upon examination it was found that he was suffering from

a post-operative mastoiditis which was pussy. The wound was cleansed and dressed with an iodine solution, one part iodine to five hundred parts water. There was also prescribed a three-grain dose of calomel by mouth and a tonic of Fowlers solution with iron, quinine and strychnine. For the first three days the patient was seen twice a day and thereafter was seen daily. On each of the visits the wound was dressed in the manner similar to the first dressing. On May 27 an abscess which had formed in the ear canal was opened by the physician, releasing a great quantity of pus. At this time the patient was also suffering from tonsillitis which under proper treatment cleared up, and the child was also affected with an otitis media and a furunculosis. The furunculosis under the treatment of the defendant cleared up, but the otitis media did not clear. After the subsidence of the tonsillitis the otitis media not clearing the defendant advised the removal of the tonsils and adenoids so as to increase the drainage from the middle ear. On June 7 under a general anaesthesia of chloroform administered by another physician he performed an adeno-tonsillectomy. He remained with the child until he had fully come out of the anaesthesia. There were no untoward effects from this operation and no excessive bleeding. After the tonsillectomy the physician made daily calls, irrigating and dressing the ear upon each call. He also examined the throat, which presented the usual normal condition after the removal of tonsils. At no time was there any inflammation, swelling or white patches in the throat or the membrane thereof. The otitis media began to clear after the tonsillectomy on June 7.

On June 10, at the time the defendant called on the patient, the child was up on the roof of his home playing and was called down by his mother. The defendant continued to make daily visits until June 16. The ear condition had completely cleared. There was, however, a little pus in the throat for which condition there was prescribed a gargle of potassium chlorate, powdered alum and glycerine, one dram to six ounces of water. On the morning of June 16, at about ten o'clock, at the time of the defendant's call he carefully examined the child and found the heart and lungs in normal condition. The heart had

the Post, and that when immunizations were begun, the enlisted men objected, but readily consented after the children of the officers had been immunized

Dr Ormsby described the toxin-antitoxin work in the public schools of Amsterdam, and said that an effective object lesson was the death of a child to whom its parents had refused immunization. Dr Ormsby said that, while all the school children had been immunized at public expense, in the future the work would probably be left to the family doctors.

Dr H. A. Gilmartin of Schenectady, said that consents for giving toxin-antitoxin to school children had been obtained by school nurses who visited the parents and not only got their consents, but asked them to name the doctor whom they wished to give the immunizations. The Department of Health then informed the doctors of the names of those who would come for the immunizations and in this way the cooperation of the physicians was secured. The doctor said that a display card was given to each doctor stating that he was prepared to give the immunizations.

After the social supper at seven o'clock, given by the Hospital, the members and guests and the nursing staffs of the two hospitals of Plattsburg listened to addresses interspersed with musical number.

Dr D. S. Dougherty spoke on the topic "Sentiment in Nursing" and placed the nurse who is actuated by a love for humanity in contrast with the one who works principally for money. He spoke of the value of relaxation as a means of grace, and quoted Sir Thomas More:

'As onward we journey how pleasant
To pause and inhabit the while,
Some bright sunny spot like the present,
That midst the dull wilderness smile
But time like a pitiless master
Cries 'Onward' and spurs the gay hours

Oh, never does time travel faster
Than when its path leads through flowers
Oh then may our life's happy measure
Be all of such moments made up
They are born on the bosom of pleasure,
They die 'midst tears of the cup"

Dr George M. Fisher referred to the work of the State Society's special committee on nursing, which was seriously considering the proposition that every nurse should have two years of general bedside training, and then if the nurse wished to take up public health work, or other specialty, she should give another year to the extension study of that branch. He also advised the nurses to avoid giving medical advice—practicing medicine—and to stick to her nursing under the direction of the doctor.

Dr Horace M. Hicks described the early work of Florence Nightingale who, amid the opposition of generals and army surgeons, brought her own supplies to the Crimea by the shipload, and with gentlewomen as assistants, introduced methods of modern cleanliness where filth and vile smells and neglect had always prevailed.

A scientific session was held on the morning of October 2, at which the following papers were presented:

"Three Years Observations with Deep X-Ray Therapy and Radium" By Albert Lenz, M.D., Schenectady

"Infant Feeding and Its Problems" By Frank vander Bogert, M.D., Schenectady

"Colles Fractures" By Frederick F. McGauley, M.D., Schenectady

"Observations on Pernicious Anemia with Particular Reference to Recent Dietetic Treatment" By Thomas Ordway, M.D., Dean Albany Medical College

THE SEVENTH DISTRICT BRANCH

The twentieth annual meeting of the Seventh District Branch of the Medical Society of the State of New York, comprising the counties of Monroe, Wayne, Cayuga, Seneca, Yates, Ontario and Livingston, was held on Wednesday, September 29, 1926, in the County Club, Geneva, N. Y., with the President, Dr. Claude C. Lytle, of Geneva, in the chair and Dr. John A. Lichty, of Clifton Springs, Secretary. The day was perfect, and the clubhouse of the Country Club, overlooking Seneca Lake, made an ideal meeting place. The doctors attending the meeting were the guests of the Ontario County Medical Society at a buffet luncheon at noon.

President Lytle, in opening the morning session, said that those in charge of the program considered that one function of the District Branch meeting was to afford the opportunity for the County Society to report their activities, and that in carrying out that plan, the officers had arranged reports on toxin-antitoxin immunizations against diphtheria, and postgraduate work.

The experience of the City of Auburn in the suppression of diphtheria by toxin-antitoxin immunizations was described by Dr. George C. Sincerbeaux of Auburn. His description of the work, together with a general dis-



NEWS NOTES



FOURTH DISTRICT BRANCH

The twentieth annual meeting of the Fourth District Branch of the Medical Society of the State of New York, composed of the counties of St Lawrence, Franklin, Clinton, Essex, Hamilton, Fulton, Montgomery, Schenectady, Saratoga, Warren and Washington, was held on October 1st and 2nd in Plattsburg. Dr Horace M Hicks, of Amsterdam, presided as President. Three sessions were held, an afternoon meeting on public health on October 1st, an evening supper followed by popular talks, and a scientific session on the morning of October 2nd.

The new Physicians' Hospital, in which the sessions were held, is one of the most complete hospitals in existence, and embodies the experience gained by its promoters from a study of the most modern hospitals of America and Europe. It was the gift of Mr W H Miner who resides in the vicinity of Plattsburg and is deeply interested in local medicine. The hospital is designed for 250 patients, and is equipped with every modern convenience. It was opened for patients on January 1, 1926.

The members and guests of the Fourth District Branch were the guests of the hospital at a supper given to the doctors and their ladies.

Dr Hicks, in his Presidential address, referred to the great area of the Fourth District Branch devoted to recreation and health, for within the Adirondack State Park are located sanatoriums and health camps of world-wide fame. Dr Hicks also called attention to the public health features of the program, and congratulated the County Medical Societies on having done much public health work worthy of record.

Dr George M. Fisher, President of the Medical Society of the State of New York, emphasized the necessity of watchfulness over legislation during the coming winter, although the Medical Practice Act is in operation, great efforts will be made to undo it. Workmen's Compensation bills and welfare legislation will also be proposed. The members of each County Medical Society will find plenty of work to do in advising their legislators regarding medical bills.

Dr Daniel S. Dougherty, Secretary of the Medical Society of the State of New York, spoke of the ancient identity of the priest and the physician, and of the disinterested helpfulness which is still a characteristic of the doctor of medicine. The doctor quoted the lines inserted over the gateway of the Cardiac Hospital in London:

"I shall pass through this world but once

Anything that I can do, therefore, or any kindness I can show to any human being, let me do it now. Let me not defer or neglect it, for I shall not pass this way again."

Speaking of the success of the physician in meeting his altruistic obligations, Dr Dougherty quoted from Robert Louis Stevenson:

"Some men stand high above others. The soldier, the sailor, and the shepherd not infrequently, the artist rarely, rarer still the clergyman, the physician almost as a rule. He is the flower of our civilization. * * * He will be thought to have shared, as little as any, in the defects of the period and most notably to have exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade, discretion, tested by a hundred secrets, tact, tried in a thousand embarrassments, and what are more important, herculean cheerfulness and courage. So it is that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing."

Dr E. Harrison Ormsby, President of the Medical Society of the County of Montgomery, described the public health activities and opportunities of the County Medical Societies of the Fourth District Branch. His paper is printed on page 859 of this JOURNAL.

Dr Earl H. King, of Saratoga Springs, discussed the principles of the periodic health examination. An abstract of his address is printed on page 861 of this JOURNAL.

Dr William L. Munson, of Granville, District State Health officer, suggested that an effective means of proving the sincerity of the advocates of periodic health examinations was that each promoter, lay or medical, should himself take an examination and thus set an example to others.

The anti-diphtheria campaign was presented from the practicing physician's point of view, by Dr William H. Ladue, of Plattsburg, and from the health officer's viewpoint by Dr Leo F. Schiff, health officer of the city of Plattsburg, and there was not much difference between the two. A considerable part of the discussion was over difficulties in the way of giving toxin-antitoxin immunizations. It does not seem to take much of a mole-hill to appear to be a mountain of objection to some persons. One prominent educator, for example, who objected to toxin-antitoxin has a sister who is a chiropractor.

Col. Huntington, Medical Officer at Plattsburg Barracks, said that there were 200 children at

suggested that the code might be modified so as to permit older physicians who find it difficult to continue their general practice, to engage in fraternal practice if they desired to do so. He also suggested that the County Society should take a greater interest in the conduct of the local hospital.

"What progress have we made in the past five years?" Dr W J Kennedy, speaking on this subject, said that the best indication of the progress made in the last five years was in the improved character of the papers that are being read before the Society.

"Were the local post-graduate courses such as we held last winter, a success, and should we have another course this year?" Dr George Lenz stated that the post-graduate course had achieved a marked success and those who had been able to attend it were eager that another course should be instituted this year. An epidemic of influenza which occurred at the time the course was given, reduced the attendance and some others were unable to attend because the meetings were held in the afternoon. He recommended, therefore, that if a course were undertaken this year it should be given in autumn and in the evening.

"Should we take more active interest in the function of our Board of Health?" Dr H C Denham, President of the Board of Health, urged the members of the Society to take a more active interest in the function of the Board of Health and in its personnel. He

suggested that the Society should recommend to the Mayor candidates for appointment to the Board when vacancies occurred.

"What is our attitude toward the various welfare organizations of the community?" Dr H B Riggs said that he thought the Society bore an attitude of restraint toward the activities of voluntary agencies, and realized that some might consider it debatable as to whether the Society should interest itself more actively, but gave it as his opinion that the County Society should consider the programs of all agencies whose activities led them into the field of health, and grant their approval wherever possible.

"What are our greatest faults as a Medical Society and in what ways should we progress in the future?" Dr A C Hagedorn agreed with Dr McKillip in feeling that the Society might consider a modification of its code of ethics, but, on the whole, he felt that the Society is doing splendid work.

Dr H H Oaksford made a few humorous remarks in response to "What is the proper way to conduct an outing of the Medical Society?"

Dr Fisher and Dr Lawrence were called upon to open discussions on the subjects, and Dr Sloan was asked to enlighten the Society on the work of his committee.

Comments at the close of the meeting indicated the wisdom of occasionally having a program of this character.

DELAWARE COUNTY MEDICAL SOCIETY

The following account of recent activities of the Delaware County Medical Society was received from Dr Robert Brittain, of Downs ville, N Y.

Through the kind auspices of Wilfred W Fry of Philadelphia, a former Delaware County boy, the Delaware County physicians were invited to attend a supper at Meredith Inn in honor of Ross V Patterson, M D, Dean of Jefferson Medical College, Philadelphia, Pa. Another distinguished guest was Dr Mendel, another Delaware County boy. These men all gave after-dinner talks which were very much enjoyed, as also was the supper. Nearly every member of the profession in the county was present, and not one invalid was found among them as was seen from the manner the supper was devoured. Such an innovation in the lives of a county physician breeds good fellowship, and more interest in our work. This supper and talks will go down in memory as a noted event.

The Delaware County Medical Society held a meeting on the evening of September 7, in the interests of popular Medical Education. Fifteen

of the twenty-two members of the society met in Downs ville for a social supper at six o'clock, after which the doctors went to the Opera House and representatives of their number addressed an audience of one hundred persons on health. Topics in which the people of the town were interested. Dr R. D Champlin and Dr Frank W Laidlaw, Health Officers, described the duties of people during an epidemic. Dr Harris A Houghton, of New York City, talked on the presentation of general diseases. Dr Meeker, of the State Education Department, talked on the preservation of the teeth. Addresses were also made by physicians from Delaware County, Dr T L Craig of Davenport, Drs W G Smith and W B Morrow of Walton, and Dr J E Safford of Stamford.

The meeting was unique in that it was designed for the direct benefit of the citizens of Delaware County. The people were interested not only in the subjects that were presented but doubly so because the topics were presented by their own local physicians.

cussion of toxin-antitoxin, is printed on page 857 of this JOURNAL

Dr Allen, health officer of the Village of Clyde, Wayne County, said that the work of giving the Schick test and immunizations was begun in Clyde three years ago. Practically all the school children had been immunized, with the result that the only case of diphtheria that developed among school children was in a child in whose family there were other cases of diphtheria. All the physicians of Clyde had taken turns in giving the immunizations to the pupils.

Dr B J Slater, of Rochester, presented the subject, "Postgraduate Work in the District, Is It Worth While?" An abstract of his address is printed on page 854 of this JOURNAL.

Dr George M Fisher, President of the Medical Society of the State of New York, gave an address in which he outlined the ever increasing number of benefits which the State Society brings to the practicing physician, and showed how the doctors could obtain those benefits through their County Medical Societies. He especially emphasized the post-

graduate work offered to the county societies, and told the members that they could obtain instruction in any subject they might choose.

The scientific part of the program consisted of three topics, all concerning early signs of disease. The first paper was "The Early Diagnosis of Diabetes," by Dr Floyd R Wright, of Clifton Springs.

"The Importance of the Early Recognition of Urologic Pathology," was the subject of a paper by Dr Henry G Bugbee, of New York City.

Dr Clayton W Greene, of Buffalo, discussed "Essential Hypertension," by which he meant increased blood pressure without evident symptoms and signs of involvement of the kidneys or heart. However, Dr Greene suggested that refined methods of study might reveal a beginning involvement of these organs.

The meeting was well attended and the members showed a deep interest in the scientific papers and in the reports of work done by the County Medical Societies.

THE HERKIMER COUNTY MEDICAL SOCIETY

On Tuesday, September 14th, Dr George M Fisher, President of the State Society, and Dr Joseph S Lawrence, Executive Officer, visited the Herkimer County Medical Society. The meeting was held at Pine Crest Sanatorium, where the members were guests of Dr Parkinson, Superintendent of that institution.

Dr John L Crofts, of Newport, read a very interesting and instructive paper on "Headaches and Their Causes." In the absence of Dr H A Bray, of Ray Brook, who was to read a paper on "The Diagnosis of Tuberculosis," Dr H J Ball, the district State health officer, was called upon to inform the Society concerning the State Department of Health's

tuberculosis program for the county. Dr Ball also spoke of the anti-diphtheria campaign.

Dr Fisher and Dr Lawrence continued the discussion of the anti-diphtheria campaign and urged the members of the County Society to aid the campaign by immunizing all the children in their families, and particularly those between the ages of six months and six years.

The Society adopted a resolution to this effect and also decided to make public their resolution.

Several members urged that the County Society take steps toward securing a county laboratory. A committee was appointed to take up the matter and report at a future meeting.

THE FULTON COUNTY MEDICAL SOCIETY

Thirty-five members of the Fulton County Medical Society accepted the invitation of their secretary, Dr A M Brown, to dine at the Sir William Johnson Country Club, Gloversville, on Friday evening, September 17th. There were also present as invited guests, Dr George M Fisher, President of the State Society, Dr Joseph S Lawrence, Executive Officer, and Dr Andrew Sloan, chairman of the sub-committee to study the nursing problem.

Invitations to the meeting announced that the evening would be devoted entirely to a

consideration of the conduct and workings of our County Society, and accordingly, after a short business session, Dr Ehle, President of the Society, announced the following program.

"What constitutes a healthy County Medical Society? Is our Medical Society in a healthy condition?" Dr B G McKillip, responding, said that, in his opinion, the County Society is in a healthy condition, but that it could improve its standing by a consideration of the code of ethics under which it is operating. He



THE DAILY PRESS



LIFE'S MYSTERIES

The New York *Herald-Tribune* of October 4 contains a description of a sermon preached by Dr Harry Emerson Fosdick to the congregation of the New Park Avenue Baptist Church, which is well known because its building is the gift of John D Rockefeller Dr Fosdick said

"There are four great questions about life Whence did we come, why did we come, how did we come, whither do we go? Science, which so many people suppose is going to crowd out religion, touches only one of them

"How did we come? That is science's field Science discovers for us the methods and processes of nature and life Marvelous have been its contributions It tells us how things have come But whence? And why? And whither?

"A book," he began, 'on the relationship between science and religion recently ended with this ultimatum 'Mysteries must give way to facts' In that curt and summary dictum is concentrated a large amount of popular thinking

'With strange cocksureness in university lecture halls, popular magazines and Sunday supplements, we find ourselves on tiptoe expectantly awaiting the solution of the last mystery A thoughtful man may well grow suspicious of

this superficial talk about the end of mystery The fact is the more one knows about the world, the more mysterious it is

But in religion itself, as a vital, saving and sustaining power in human experience, we are so deeply interested that here in New York, which some ministers are leaving because it seems hopeless and other ministers are refusing to come to because it seems obdurate and hard, we are proposing to erect a fresh and high standard of non-sectarian Christianity We are sure that in New York or out of it man cannot live without religion"

The subject of the conflict of science and religion has been prominently before the public for some years, and if the truth were told, most physicians are indifferent to the discussion Dr Fosdick states the viewpoint of most physicians when he enumerates the four great questions of life, and says that science, (including medical science) answers only the questions that concern the past A physician is the last person who would wish to destroy true faith, for it leads to a serene outlook and expectation which leads to rest and health

THE APE-MAN OF JAVA

Further light on the first of the fundamental questions of life stated by Dr Fosdick is the discovery of a complete skull of the Ape-Man of Java, as announced in the daily papers of September 28 The *New York Sun* of that date says

"Prof Heberlein of the Netherlands Government medical service has discovered at Trinil, in Central Java, a complete skull of the prehistoric apelike creature termed by some the "missing link," and by science, *Pithecanthropus erectus*

'The skull was found at the same place where Prof Eugene Dubois of Amsterdam University discovered in 1892 the upper part of a skull, two teeth and a thigh bone, from which was reconstructed the previously unknown apelike human designated as *Pithecanthropus erectus*

"Prof Heberlein's specimen, which is complete and sound, will be kept in Dutch East India, as the exportation of such relics is prohibited"

The word *Pithecanthropus* means simply ape-man, and is derived from two Greek words "pithecos," ape, and "anthropos," man The translation of the full scientific name is The Great Ape-Man

Science is answering the question, "Whence came we?" as it is slowly reading the record of man's dim past written in rocks buried safe in Mother Earth It is a story of continuous upward progress If history reveals the future, the story of man's ascent, physically and mentally and spiritually is an assured basis for expecting nobler planes of human life that are portrayed by prophets and godly seers

The story of man, the animal, is paralleled by that of the elephant One line of ancestral elephants developed great upper jaws which enabled them to browse on trees which were the dominant type of vegetation in later periods of geological time But at the same time another branch developed their lower jaws to uncouth lengths, with which they dug roots for food until they all starved to death because they could not chew and digest tough tree-roots

Man, too, has developed along diverse lines One line has lived in trees, as their descendants still do in the African forests, and as a result they are still wild men of the woods Another branch lived in huts raised above marshes and lakes, and their descendants have remained "clam diggers"

COLUMBIA COUNTY MEDICAL SOCIETY

The Columbia County Medical Society held its 120th semi-annual meeting on the morning of Tuesday, May 11, 1926, in the Taconic Inn, Copake. Three-fifths of the membership attended the meeting, which was one of the most successful ever held. A pleasing feature was a social dinner at noon.

The application of Dr. Helen M. Deane, of the State Training School for membership, was received and acted upon favorably.

The membership of Dr. L. J. Early, of this city, was transferred from the Albany County Society to that of Columbia County.

Dr. S. V. Whitbeck, of this city, chairman of the Committee on Public Health and Post Graduate Education, reported that a very successful course in "Pediatrics and Infant Welfare," was being given every Thursday night at the City Hospital, Hudson.

The society went on record as being in favor of

toxin-antitoxin for children as a diphtheria preventative.

The committee which was to report on a county public laboratory asked for and was given further time in which to make a report.

Dr. G. M. Fisher, of the State society, spoke of the progress being made by the society in advancing the ideals of the profession.

Dr. H. L. K. Shaw, of Albany, gave an enlightening talk on the infections of the urinary tract of children.

Dr. J. P. Ruppe, of the Philmont Sanatorium, received the approval of the society in regard to his efforts for the erection of an addition to the sanatorium to accommodate juveniles.

The Committee on Public Health was instructed to send a protest on the part of the county society to the Congressman protesting against amendments of the Harrison drug act.

THE NEW YORK ACADEMY OF MEDICINE GUIDES TO GRADUATE STUDY

The New York Academy of Medicine has issued a series of guides to postgraduate instruction in Greater New York. A booklet giving detailed information regarding the hospitals of Greater New York was reviewed on page 682 of the August first issue of this Journal. This booklet gives data regarding the clinics and other forms of instruction that are available in each hospital.

The Academy has supplemented the booklet with a series of twelve others written from the standpoint of subjects of instruction, and containing synopses of approved courses given in those topics in the several hospitals. The subjects of the series of pamphlets are

- 1 Dermatology and Syphilology
- 2 Obstetrics and Gynecology
- 3 Internal Medicine
- 4 Ophthalmology
- 5 Oto-laryngology
- 6 Pediatrics
- 7 Surgery
- 8 Urology
- 9 Neurology and Psychiatry
- 10 Orthopedic and Rehabilitation Surgery
- 11 Roentgenology

12 Public Health, Health Examinations, and Fundamental Medical Science subjects

These guides form a part of the service offered by the New York Academy of Medicine to physicians everywhere. The announcement printed in each synopsis says

"The Committee on Medical Education of the New York Academy of Medicine has for some time been studying the opportunities for graduate medical education offered in New York City. Its approval has been lent to those courses only which were found to be well organized, with adequate equipment and clinical material, and given by physicians of character who are known to be qualified teachers in their special lines of work.

"The investigation has been carried on by a number of sub-committees, which have surveyed the courses offered and have reported their recommendations to the full committee."

Any of these synopses will be sent free to any doctor who applies to the Bureau of Clinical Information, New York Academy of Medicine, 17 West 43rd Street, New York, N. Y.



BOOKS RECEIVED



Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

A HISTORY OF THE MASSACHUSETTS MEDICAL SOCIETY WITH BRIEF BIOGRAPHIES OF THE FOUNDERS AND CHIEF OFFICERS By WALTER L. BURRAGE, A.M., M.D., Secretary of the Society Illustrated with views of meeting places, reproductions of old documents and portraits of important officers Privately printed, 1923

THE ESSENTIALS OF PHYSIOLOGY INCLUDING THE PHARMACODYNAMICS OF THE IMPORTANT TYPICAL DRUGS By GEORGE BACHMANN, M.S., M.D., and A. RICHARD BLISS, Jr., A.M., Ph.D., M.D. 343 pages, 178 illustrations Phila., P. Blakiston's Son and Co., 1924

A COMPEND OF OBSTETRICS Especially Adapted to the Use of Medical Students and Physicians Revised and Edited by Clifford B. Lull, M.D. Tenth Edition. 16mo of 283 pages with 84 illustrations Philadelphia, P. Blakiston's Son and Co., 1925 Cloth, \$2.00 (Blakiston's Compend)

LOCAL ANESTHESIA IN OTOLARYNGOLOGY AND RHINOLOGY By JAMES JOSEPH KING, A.B. M.D. Octavo of 205 pages, with 21 illustrations New York, Paul B. Hoeber, Inc., 1926 Cloth, \$5.00

SURGERY OF CHILDHOOD By JOHN FRASER, M.C. M.D. Two octavo volumes of 1152 pages with illustrations. New York, William Wood and Company, 1926 Cloth, \$14.00

ELECTROTHERMIC METHODS IN THE TREATMENT OF NEOPLASTIC DISEASES Designed as a Practical Handbook of Surgical Electrotherapy for the Use of Practitioners and Students By J. DOUGLAS MORGAN, B.A., M.D. 12mo of 172 pages, with illustrations Philadelphia, F. A. Davis Company, 1926 Cloth, \$2.50

THE HUMAN CEREBROSPINAL FLUID An Investigation of the Most Recent Advances as Reported by The Association for Research in Nervous and Mental Disease. Editorial Board, CHARLES L. DANA, M.D., and others Octavo of 568 pages, with 77 illustrations. New York, Paul B. Hoeber, Inc., 1926 Cloth, \$10.00 (Association for Research in Nervous and Mental Disease. Volume IV [1924])

SURGERY OF NEOPLASTIC DISEASES BY ELECTROTHERMIC METHODS By GEORGE A. WYETH, M.D. Octavo of 298 pages, with 137 illustrations New York, Paul B. Hoeber, Inc., 1926 Cloth, \$7.50

THE MODERN TREATMENT OF HEMORRHOIDS By JOSEPH FRANKLIN MONTAGUE, M.D., F.A.C.S. Octavo of 296 pages, with 116 illustrations Philadelphia and London, J. B. Lippincott Company, 1926 Cloth, \$5.00

AN ATLAS OF MIDWIFERY By COMYNS BERKELEY, M.A., M.C., M.D., and GEORGES M. DUPUY, M.D. Octavo of 160 pages with illustrations. New York, William Wood and Company, 1926 Cloth, \$3.00.

PRACTICAL ULTRA-VIOLET LIGHT THERAPY A Handbook for the Use of Medical Practitioners. By T. Clyde McKenzie, M.B., Ch.B., and A. A. King Octavo of 108 pages, with illustrations New York, William Wood and Company, 1926 Cloth, \$2.50

HANDBOOK OF MEDICAL ELECTRICITY AND RADIOLOGY By JAMES R. RIDDELL, F.R.F.P.S. 12mo of 239 pages, with illustrations New York, William Wood and Company, 1926 Cloth, \$2.75

ORTHOPÆDIC SURGERY By W. A. COCHRANE, M.B., Ch.B. Octavo of 528 pages, with illustrations New York, William Wood and Company, 1926 Cloth, \$6.50

CANNULA IMPLANTS AND REVIEW OF IMPLANTATION TECHNIQUES IN ESTHETIC SURGERY By CHARLES CONRAD MILLER, M.D. 12mo of 99 pages, with illustrations Chicago, The Oak Press, 1926 Cloth, \$2.00

THE DUODENAL TUBE AND ITS POSSIBILITIES By MAX EINHORN, M.D. Second edition, revised and enlarged. Octavo of 206 pages, with illustrations. Philadelphia, F. A. Davis Company, 1926 Cloth, \$3.00.

PRACTICAL MATERIA MEDICA AND PRESCRIPTION WRITING By OSCAR W. BETHEA, M.D., Ph.G. Fourth revised edition. Octavo of 498 pages with illustrations Philadelphia, F. A. Davis Company, 1926 Cloth, \$4.50

RADIOTHERAPY IN RELATION TO GENERAL MEDICINE By FRANCIS HERNIMAN-JOHNSON, M.D. 16mo of 211 pages London and New York, Oxford University Press, 1926. Cloth, \$1.75 (Oxford Medical Publications)

DISEASES OF CHILDREN A Short Introduction to Their Study By HECTOR CHARLES CAMERON, M.A. M.D. 16mo of 199 pages. London and New York, Oxford University Press 1926 Cloth, \$1.75 (Oxford Medical Publications)

THE SURGERY OF GASTRO-DUODENAL ULCERATION By CHARLES A. PANNETT, B.Sc., M.D. Octavo of 154 pages, with illustrations London and New York, Oxford University Press, 1926 Cloth, \$3.25 (Oxford Medical Publications.)

BRAIN AND HEART Lectures on Physiology By GIULIO FANO. Translated by HELEN INGLEBY Octavo of 142 pages, illustrated London and New York, Oxford University Press, 1926 Cloth, \$2.75 (Oxford Medical Publications)

STUDIES IN INTRACRANIAL PHYSIOLOGY AND SURGERY The Third Circulation, The Hypophysis, The Gliomas By HARVEY CUSHING, M.D. Octavo of 146 pages illustrated. London and New York, Oxford University Press, 1926 Paper, \$3.25 (Oxford Medical Publications)

even until now Other branches lived on the open plains where dangers constantly threatened, but where there was boundless opportunity and even the necessity to conquer Nature, and to progress along all the lines that go to make the modern man of highly civilized nations

Viewing the long line of human progress from the *Pithecanthropus erectus*, up through the low browed Neanderthal man to the present *Homo sapiens*, what scientist will dare to deny the

probability of his future development into the *Homo angelicus*?

The American Museum of Natural History, at 77th Street and Eighth Avenue, New York City, contains exhibits of casts and restorations of the skulls of primitive men, including that of the first Java ape-man to be discovered by Dubois The May-June, 1920, issue of the magazine, *Natural History*, published by the Museum, contains photographs of some of the more striking exhibits illustrating the ascent of man

CANCER CONTROL

The newspapers have carried column notices of the International Cancer Symposium held in Lake Mohonk during the last week in September The *New York Times* of September 25 says

"For the first time in the history of medicine, experts from Europe, Canada and the United States agreed here today on an authoritative statement of the present state of scientific knowledge concerning cancer

"The statement, which is designed to aid the medical profession and public generally, was made public by Dr George A Soper, managing director of the American Society for the Control of Cancer, at the close of a five-day international cancer symposium held here under the Society's auspices

"More than one hundred specialists, leaders in their respective countries, joined in issuing the statement"

The statement is designed for educating the people It is carefully written in order to carry scientific weight, and its items are carefully modified in order to secure accuracy For example, the statement says

"Although the causation of cancer is not completely understood, it may be accepted that for all practical purposes cancer is not to be looked upon as contagious or infectious"

Other items of information contained in the statement are

"Cancer in some parts of the body can be discovered in a very early stage, and if these cases are treated properly the prospect for a permanent cure is good

"The cure of cancer depends upon discovering the growth before it has done irreparable injury to a vital part of the body and before it has spread to other parts

"The public must be taught the earliest danger signals of cancer which can be recognized by persons without a special knowledge of the subject, and induced to seek competent medical attention when any of these indications are believed to be present

"The most reliable forms of treatment and, in fact, the only ones thus far justified by experience and observation, depend upon surgery, radium and X-rays

"Efforts toward the control of cancer should be made in two principal directions, the promotion of research in order to increase the existing knowledge of the subject and the practical employment of the information which is at hand"

While these statements are not new, yet they are authoritative, and are the opinions of the leading cancer experts in the world

PRISON DIET

A Nebraska County Judge has been achieving notoriety recently by giving prohibition offenders prison sentences with a bread and water diet The judge is reported as trying a bread and water diet on himself for five days with the result of "a loss of ten pounds weight and a renewed determination to punish every liquor law violator with a similar sentence in jail"

The reports say that the sheriff also underwent a self-imposed diet of bread and milk,

in order to judge what a bread and water diet would be like He too had lost ten pounds, but still weighs 264 pounds

Such experiences and experiments as these mean nothing Almost any adult would stand a good chance of being benefited by a strict bread and water diet for several days The principal bad effects of the diet would result from a deficiency of certain food elements, but they would not be likely to appear under several weeks

A MANUAL OF HYGIENE AND SANITATION By **SENECA EGBERT, A.M., M.D., Dr.P.H.** Eighth edition, enlarged and thoroughly revised. Octavo of 616 pages, with illustrations. Philadelphia and New York, Lea and Febiger, 1926. Cloth, \$4.00

Dr Egbert in this work demonstrates very comprehensively his thorough knowledge of this all important science. In this edition he has made such revision as to keep his manual apace with the modern advances made in the field which this volume covers.

The introductory chapter is very impressive and enthruses one to read on to get new ideas regarding hygiene and sanitation.

The work is very systematic. It reveals the modern attitude, trend and accomplishments in this broad field which is drawing universal attention.

The book is well written and covers the subject in a clear, concise way. We would not hesitate to recommend its use by all students of hygiene and sanitation.
J J W

NEURITIS AND NEURALGIA. By **WILFRED HARRIS, M.D., Cantab, F.R.C.P., Lond.** Octavo of 418 pages, with illustrations. New York, Oxford University Press, 1926. Cloth, \$4.00 (Oxford Medical Publications)

There are but a few terms that are as loosely used by the medical profession as neuritis and neuralgia. In fact, the knowledge of the average medical practitioner regarding these terms is quite hazy. The author has treated the subject in a lucid, literary style, and has presented it to the profession in a manner that ought to arouse interest in the subject. The book is profusely illustrated. There are references to many articles dealing with different phases of the subject. The author has drawn mainly from his own practice which apparently is a mighty large one and covers several decades. There is a great need for just such a publication, as both the neuritic as well as the neuralgic conditions have been greatly neglected.

IRVING J SANDS

BLOOD CHEMISTRY COLORIMETRIC METHODS FOR THE GENERAL PRACTITIONER. With Clinical Comments and Dietary Suggestions. By **WILLARD J STONE, B.Sc., M.D.** Second Edition, revised. Octavo of 129 pages. New York, Paul B Hoeber, Inc., 1926. Cloth, \$3.25

The second edition of this book continues as an excellent compend of chemical analysis of the blood. It is characterized by succinctness and clarity. The methods of procedure are chosen for their simplicity and accuracy. An excellent summary of the significance of the various blood findings is given. It is of special value to the technician, internist and genito-urinary surgeon. In any laboratory it will prove to be a useful supplement to more elaborate works on chemical analysis of the blood.
M WISNEFSKY

MATERIA MEDICA AND THERAPEUTICS, INCLUDING PHARMACY AND PHARMACOLOGY By **REYNOLD WEBB WILCOX, M.A., M.D.** Eleventh Edition. Octavo of 798 pages. Philadelphia, P Blakiston's Son and Company, 1926. Cloth, \$5.00

This old standard, coming back for the 11th time, has been revised to conform to the new pharmacopoeia. Some change in arrangement, placing the drugs under their leading physiologic action, is an improvement and in accord with the tendency of the times. In other particulars this volume follows the arrangement of its well known predecessors. Time is clarifying the muddled therapy of yesterday. It would be interesting to compare many of the statements in this edition regarding pharmacologic action with statements made in the 1st edition about the same drugs.
M. F DEL.

TEXT-BOOK OF MATERIA MEDICA FOR NURSES Compiled by **LAVINIA L. DOCK, R.N., and JENNIE C. QUIMBY, R.N.** Eighth Edition. 12mo of 317 pages. New York and London, G P Putnam's Sons, 1926. Cloth, \$2.25

This issue is the eighth edition. Evidently the book is supplying a need and well it may, as it is one of the best of its kind. Its 300 pages provide a liberal store of information of value to nurses and it can be recommended for this purpose.
M F DEL.

THE PRINCIPLES AND PRACTICE OF ENDOCRINE MEDICINE. By **WILLIAM NATHANIEL BERKELEY, Ph.D., M.D.** Octavo of 368 pages, with 56 illustrations and 4 colored plates. Philadelphia and London, Lea and Febiger, 1926. Cloth, \$4.50

The field of endocrinology while at present very speculative bids fair in the near future to add more and more to definite practical curative medicine.

The author of this small volume has made a sincere and successful effort to present this difficult subject in a simple and practical way and has presented many details of treatment and dosage.

The volume is made up of fifteen chapters describing the morphology of the glands of internal secretion, alterations in structure, physiology and results of altered secretion, lack of secretion or excessive activity. Separate chapters are devoted to the subject of basal metabolism and the influence of endocrine on growth, old age and obesity.
H M F

SIXTY YEARS IN MEDICAL HARNESS Or the Story of a Long Medical Life, 1865-1925. By **CHARLES BENJULYN JOHNSON, M.D.** Octavo of 333 pages. New York, The Medical Life Press, 1926. Cloth, \$3.00

This book is an interesting mass of details in the reminiscences of a country doctor, who practised during the most eventful and most progressive period of medical history. Starting with the Civil War in which, as a steward, Dr Johnson tells of the surgical difficulties of those war days. He then depicts the trials and tribulations of his medical student years. His teachers in the various medical schools are vividly portrayed. Dr Johnson gives us an accurate account of the medical colleges of the 60's and 70's with their limitations as to adequate teaching staffs and adequate teaching facilities.

The account of his struggles as a recent graduate trying to establish a practice in a rural community is enlivened and embellished by numerous interesting and amusing anecdotes. He reveals the hardships encountered in practising in a sparsely populated district with the lack of conveniences even in those inconvenient days.

But what is most absorbing in Dr Johnson's book is his accurate and detailed descriptions of the medical men of note with whom he came in contact or was at some time or other associated during his sixty years of active practice, for he thus transmits good word pictures of these men for use in medical annals.

This book is very well written. Its moderate price places it within the reach of everybody. The book should meet the hearty welcome it deserves.

WM RACHLIN

OPHTHALMIC NEURO-MYOLOGY A Study of the Normal and Abnormal Actions of the Ocular Muscles from the Brain Side of the Question. By **GILES C. SAVAGE.** Second Edition. Octavo of 227 pages, illustrated. Nashville, Tenn., McQuiddy Printing Co., 1926. Cloth, \$3.00

After a lapse of over twenty years, the second edition of Dr Savage's book has appeared.

The preface to this edition states "Pages six to twelve have been rewritten because of the discovery that the eye has only two axis of rotation."

A new table showing the action of the eye muscles concerned in the various rotations has been constructed and is set forth on page eleven.



BOOK REVIEWS



THE CRIPPLED HAND AND ARM By CARL BECK, MD
Philadelphia and New York, J B Lippincott Company, 1925 Octavo of 243 pages, with 302 illustrations

Contributions in monographic form seems to be the vogue. Representing, as a rule, the most important effort of an author's life work, they are splendid auxiliaries to one's text book, volumes on general medicine or surgery and a valuable adjunct to the reference shelf.

Carl Beck's volume, "The Crippled Hand and Arm," deserves such a place, not perhaps because of its profound treatment of all the problems of hand, forearm and arm surgery, but because of the enthusiasm and optimism which is evinced by him for his subject and which he has attempted to pass on to his readers.

The chapter dealing with the congenitally deformed hand seemed most interesting. Beck illustrates the advantage of carefully planned stage operations for the correction in part at least of such distressing deformities as ectrodactyly (clump or drumstick hand).

The first three chapters are introductory. Function, anatomy and physiology are discussed. These are followed by individual chapters on injury, mutilation, burns and disease in their relation to the crippled hand.

The concluding 100 pages or part II of the volume deals with the wrist, elbow and shoulder lesions in relation to the hand. Illustrations are numerous, the line drawings very good and the photographs instructive.

DONALD E. McKENNA

SEX AND EXERCISE—A STUDY OF THE SEX FUNCTIONS IN WOMEN AND ITS RELATION TO EXERCISE. By ETTIE A. ROUT (Mrs F. A. Hornibrook). Foreword by A. C. HADDON, M.A., ScD, F.R.S. William Wood and Company, New York, 1925. Price, \$2.25.

For the female of the species, at any rate, there exists (in the author's opinion) a close relationship between the sex function and the physiological efficiency of the muscles of the abdominal, gluteal and pelvic parts of the trunk. When these muscle groups are at or above par, constipation vanishes and sexual frigidity, whose frequent cause is intestinal stasis, disappears. To support her contentions, the author points to the remarkable physical and marital efficiency of the semi-savage races and tribes whose muscular and sexual perfection are due, it is claimed, to their native dances. For us "civilized" folk, the author urges the adoption of a "system of exercise based on the native dances" so as (1) To stir into healthful activity the whole of the abdominal and pelvic organs (2) To prevent or remove the most objectionable feature of civilized humanity—the protuberant belly and the overhanging buttocks (3) To strengthen and improve the muscles of the pelvic diaphragm which support and operate the organs of generation and evacuation.

Just how to accomplish these desiderata is set forth in part three of the volume, actual photographs being employed to accompany the descriptions of the exercises that are recommended. As an illustrated physical culture manual, the book is of some value, but it is difficult to subscribe to the author's radical views on eugenics and birth control.

FRANK E. MALLON

THE OLD TIME COUNTRY DOCTOR. A special article published in *The Journal of the American Medical Association*. By WILLIAM ALLEN PUSEY. American Medical Association Press, 1925.

This is a very brief but remarkable portrayal of the common sense practice of an old time country doctor as depicted by his own son.

WM. RACHLIN

INTERNATIONAL CLINICS. Edited by HENRY W. CATTELL, A.M., M.D. 35th series, Volume II. Octavo of 311 pages, illustrated. Philadelphia and London, J B Lippincott and Company, 1925.

The International Clinics have always stood out in their type and this volume is no exception. The first article is given over to some very interesting portraits of medical men, past and present, and should prove delightful reading to the younger men who are interested in medical history.

There is a splendid paper on kidney affections. It was interesting to see that the author favored the Volhard and Fahr classification.

A paper entitled "The patient or his disease" is pregnant with facts the younger man is likely to overlook in his eagerness to come to a conclusion. It could stand repetition many times.

The newborn comes in for a paper on intracranial pressure which tells us much.

The surgical papers include Reconstruction Surgery by Albee, abscesses about the rectum and anus, and chronic purulent otitis complicated with chronic mastoid.

Abdominal diagnosis, Medical Reserve of the United States Army, unusual clinical cases and chronic infectious arthritis round out an exceedingly interesting volume.

KENNETH MACINNIS

EVOLUTION, GENETICS AND EUGENICS. By HORATIO HACKETT NEWMAN. Second Edition. Octavo of 639 pages, with illustrations. Chicago, University of Chicago Press, 1925.

This book presents a very complete survey in an historical as well as in a technical way of the subjects given in the title. It represents a great deal of effort, and forms a very handy and valuable reference work for anyone interested in these subjects, and a very good guide for physicians. Heredity in medicine is sort of an etiologic grabbag for the diseases the etiology of which is unknown. A careful reading of this book will help physicians to understand that heredity is not responsible for many of the conditions from which man suffers. We recommend this book heartily.

J. ARTHUR BUCHANAN

AN INTRODUCTION TO SURGERY. By RUTHERFORD MORISON, M.D., and CHARLES F. M. SAINT, M.D. Second Edition. Octavo of 347 pages, with illustrations. New York, William Wood and Company, 1925. Cloth, \$4.50.

This small volume of over three hundred pages is arranged in a very compact and lucid form, containing many illustrations of an instructive nature.

Not only is it a handy volume for the general medical man and surgeon but also a ready compend for the students of medicine, for whose aid this volume has chiefly been published.

The surgical conditions described are quite complete without the addition of masses of surgical details generally found in text-books on surgery.

RALPH F. HARLOE

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THE PAST, PRESENT AND FUTURE OF PREVENTIVE MEDICINE*

By MATTHIAS NICOLL, JR, M D, STATE COMMISSIONER OF HEALTH, ALBANY, N Y

WHEN, by the wondrous and much maligned process of evolution and after countless ages, man's more immediate ancestors emerged from the slime and ooze of a naked world, they shared with the prehistoric beasts of field and forest highly developed physical properties for defense and attack—mighty muscles, protective body covering, acute hearing, eyesight and sense of smell which enabled them to resist the ever present menace to their survival. But physical powers alone could have been of little avail, and the stock from which we sprung must inevitably have succumbed to the onslaughts of other species in whom such properties were equally or more highly developed. But fortunately for them and us, their descendants, in the human race alone physical development was accompanied by a comparatively rapid growth of the brain and consequent power of logical thought which enabled primitive man gradually to gain the upper hand of his living enemies and, equally important for his survival, to adapt himself to his environment and avoid the ever threatening destruction of his race by changing climatic conditions. Thus has the "Divinity that shapes our ends" decreed that man, through the power of mind, shall rule the earth. In him today, the muscles of his prehistoric ancestors have lost much of their power, fangs and claws have become rudimentary from disuse, the acuteness of the senses lessened and far exceeded by the comparatively small number of lower animals which still roam at large or are domesticated to his needs and enjoyment. But man's supremacy and very existence have ever been disputed. His enemies from the earliest human records to the present have not been, to any great extent, the lower animals or the forces of nature against which he has long since learned to protect himself. Man himself, throughout history has been and

is today man's greatest enemy. Ignorance, prejudice, distorted thinking, loose living, poverty and filth with their mighty allies—the host of communicable and degenerative diseases—are constantly at war with scientific discoveries and their utilization, with sound thinking and common sense, with justice to individual groups and nations, in short to all the factors which go to make up true human progress. In human beings, with some brilliant exceptions, soundness of mind and body are interdependent. Education, intellectual, moral and social—in the homes, schools and great seats of learning—and the application of discoveries in the field of science are the only means which we possess for the perpetuation and advancement of the human race.

This is neither the time nor place to criticize or deplore the trend of modern higher education with its tendency to cram into the minds of youth smatterings of uncorrelated facts, of which there is not full grasp of power of utilization, with the end result, in most instances, of brain-fag, mental indigestion and loose thinking. Pseudo-intellectuality is a greater menace to human progress than untutored ignorance, for the field of influence of the latter is limited while that of the former spreads like infection throughout wide areas. The day when our teaching institutions shall so rearrange their curricula that their graduates shall be taught to "think straight" and given time in which to do it, will to my mind mark the opening of a new and immensely important epoch in the history of human affairs.

There is no more brilliant and inspiring chapter in the history of human achievement than that which relates to civilized man's struggle for existence against the ravages of the infectious diseases which formerly, in great pandemics especially of plague, cholera and smallpox, took toll of countless millions at the very outposts of civilization. At first stunned and helpless, a mighty Gulliver at the mercy

* Address read before the Twenty fifth Annual Conference of Health Officers and the Eighth Annual Conference of Public Health Nurses, Buffalo, New York, October 12, 1926

A short section has been added to the previous edition describing the Monocular Phorometer of DeZeng collaborating with the author

With the exception of these changes the present edition differs little from the previous one yet its appearance is timely, as it serves again to focus attention upon the ocular motions, a subject after all too vaguely understood

As frankly stated in the preface the work is based upon an hypothesis

"If the hypothesis accounts for every phenomenon connected with the normal and abnormal actions of the ocular muscles, as it seems to do, then it ceases to be an hypothesis and becomes a scientific fact."

With this, as set forth above, fully understood, the work is a valuable contribution to Ophthalmic Literature Yet the reader can hardly refrain from wishing that this "Hypothesis" had been fortified by accounts of experimental work, or at least by references to such, whereby the general tone of the work would have appeared less dogmatic, and more in the spirit of modern investigation and research

H M S

NURSERY GUIDE FOR MOTHERS AND CHILDREN'S NURSES

By LOUIS W SAUER, Ph D, M D Second edition
12mo of 206 pages St Louis, C V Mosby Company,
1926 Cloth, \$2.00

In this book the author presents in simple fashion the general care, nourishment and ills of infants There are chapters on the nursing infant, the premature infant and on artificial feeding Diets are given up to three years of age

A portion of the book discusses some of the common ailments of infants There is also a chapter on the care of the sick baby Here are given directions for many of the therapeutic procedures that are frequently necessary in the nursery Information is given as to first aid in the various accidents that can befall a child

Its completeness and simplicity make it a very good handbook for intelligent mothers and children's nurses

HARRY A NAUMER.

THE CLINICAL INTERPRETATION OF THE WASSERMANN REACTION By ROBERT A KILDUFFE, A.B, A.M, M D Octavo of 203 pages, with illustrations Philadelphia and New York, Lea and Febiger, 1926 Cloth, \$2.50

In this small volume the author points out in a very concise and clear manner the limits and the value of the Wassermann Reaction He betrays an intimate knowledge and broad conception of the practical aspects of a subject about which there has been much discussion In a very able manner he succeeds in establishing a common ground upon which the serologist and the clinician may meet in order to derive the greatest amount of knowledge from the results of the complement fixation test for syphilis for the patient The task that he has assumed was indeed a difficult one, but he has succeeded in arriving at his goal with an admirable result

The book makes very easy reading and is to be very highly recommended, especially to the every day practitioner who wishes to know what the plusses mean in his Wassermann report.

MAX LEDERER.

MODERN METHODS IN THE DIAGNOSIS AND TREATMENT OF HEART DISEASE. By FRANCIS HEATHERLEY, M.B, B.S, F.R.C.S Second Edition 12mo of 269 pages New York, William Wood and Company, 1926 Cloth, \$3.75

The author describes the remarkable changes in our cardiological conceptions which have distinguished recent medical history, and covers a considerable range in his discussion of selected topics The chapter headings are The old and new schools, Abnormalities of the heart beat, Heart failure, Angina pectoris, Blood pressure, Symptoms and signs, Prognosis and treatment, there

is also an Appendix containing Hints to patients on the home treatment of functional disorders of the heart and a List of interesting books The chapter on the old and new schools is particularly good, that on blood pressure is perhaps the least satisfactory Treatment is not gone into extensively, but what little is given is suggestive. The use of digitalis is summed up thus "There is very little scientific evidence to show that it does any good except where increase of heart block is favorable, as in fibrillation and flutter even in fibrillation it does not always act well In some cases toxic effects are produced and the drug has to be discontinued before any showing of the heart has been produced In other cases of auricular fibrillation, even if no toxic effects are produced, no slowing of the heart takes place." The author gives digitalis in moderate doses and has nothing to say of the massive doses which have been recently advocated. He uses strophanthus to supplement digitalis, but apparently considers its action to be like that of digitalis, because he says it should be given in "twice the dose of digitalis," which statement invites criticism The Hints to patients on home treatment of functional disorders of the heart cannot be praised too highly, it is one of the best things of the kind that the reviewer has ever seen The literary style of the book in general is good, though showing carelessness at times which, however, is redeemed by its vivacity The book is easy reading

This book is obviously the work of an experienced and wise and thoroughly up-to-date cardiologist. It is interesting and stimulating as well as instructive. It can be recommended confidently to students of cardiology of all grades

E E C.

THE INTERNATIONAL MEDICAL ANNUAL A Year Book of Treatment and Practitioner's Index Forty-fourth Year, 1926 Octavo of 555 pages with illustrations. New York, William Wood and Company, 1926 Cloth, \$6.00

This volume presents an excellent review of the year's work in medicine and surgery It should prove very useful to the average practitioner It is arranged like a dictionary, so that it takes but a moment to find the information desired Furthermore, the material abstracted is connected into a readable story, another feature that increases its value to the busy practitioner Altogether, the average physician will find the Medical Annual a useful means of keeping in touch with advances in medicine

FREDERIC DAMRAU

EMERGENCY SURGERY The Military Surgery of the World War Adopted to Civil Life By GEORGE DE TARNOWSKY, M.D, F.A.C.S, D.S.M Octavo of 718 pages, with 324 illustrations Philadelphia and New York, Lea and Febiger, 1926 Cloth, \$7.50

In submitting this volume to his colleagues, the author has endeavored to eliminate the barnacles which have clung to many of the text-books on surgery, and to stress those facts which have not only withstood the critical test of time, but also harmonize with our present knowledge of Physiology

The text is divided into several chapters dealing with the Protective forms of nature, Classification of wounds, General treatment of wounds, Technique of emergency surgery, Antiseptics, Bacteriology of wounds, Gas gangrene, Wounds of bloodvessels, Burns, Shock, Injuries of the head, face, and neck, Thorax, abdomen and its contents, Genito-urinary tract, Spinal injuries, Wounds of peripheral nerves, Fractures and dislocations, Amputations, Splints, Roentgenology, and the Medico-Legal aspect of emergency surgery

These chapters are sub-divided into sub-heads where separate conditions are elaborated in very comprehensive manner, accompanied by instructive illustrations

It should prove to be a very valuable reference book to the general surgeon

RALPH F HARLOW.

To draw an exact line between official public health work and the private practice of medicine is likely to prove a more delicate and difficult task which can be accomplished only by the exercise of common sense and a spirit of fair dealing with the rights, duties and prerogatives of those concerned, including the general public

This is the age of preventive medicine. The medical profession is beginning to recognize that fact as well as those who are responsible for teaching the medical sciences. Enlightened public opinion may be more and more counted upon to subscribe to the old adage that "an ounce of prevention is worth a pound of cure." Nevertheless, it can not be denied that a great many people are natural gamblers and willing to take chances even in such matters as have to do with physical and mental health, notwithstanding the fact that the knowledge has been brought to them that with a little loss of time and some inconvenience, many dangers may be avoided which, sooner or later, will cause physical suffering and even lead to premature death.

The first, last, and whole duty of a public health official lies in the field of Preventive Medicine and Hygiene. He can not escape or abrogate that duty to others without breaking his oath of office. This does not mean that all of the work, or indeed a major part of it, can and should be performed solely by official agencies. Those who talk so glibly of the coming of so-called "State Medicine" meaning, I take it, that the State and its constituted political divisions shall assume the whole and direct responsibility for the physical welfare of each individual citizen, need only estimate the approximate cost of such an undertaking and the utter impossibility of recruiting the great army of qualified persons who would be required to perform the work, in order to be convinced of the impracticability of such a plan. In my opinion, it will never be attempted in this country unless or until the general medical profession is unable or unwilling to qualify itself in and practice the principles of preventive medicine with consequent neglect of those who look to it for professional advice. Is there any likelihood of such an occurrence?

Let me call your attention very briefly to certain facts from which enlightening conclusions may be drawn. The teaching of preventive medicine, with any degree of thoroughness, still holds but a minor place in the curriculum of many medical schools, and is practically absent from most, so that a physician who desires to become well-grounded in preventive medicine is obliged to take special courses in that subject, to become a post-graduate student in one of the several schools founded for the

training of sanitarians or work in a public health laboratory. Nevertheless, the adoption and utilization, by the medical profession, of well proven procedures for the prevention of disease which have been urged upon the general public by official and non-official public health agencies, require no special training by any competent and up-to-date physician. How large a part has the general medical profession played in this work so indispensable to the protection of the public health? Let me illustrate. Vaccination against smallpox has long since become to be regarded as a function of public health and school authorities, and as a consequence throughout a large part of this country, vaccination is no longer done as a routine procedure. Were it not for the compulsory vaccination law affecting the larger cities and the power given to the State Commissioner of Health to certify to the existence of outbreaks of smallpox, this State, continually threatened by the disease from the North, South and West, would be constantly over-run by smallpox as are a number of other states of the Union.

Inoculation against typhoid fever, except in time of war, is rapidly coming into disuse even in the case of groups and individuals who, by extensive travel or by abode in places where typhoid prevails, are specially liable to exposure.

The campaign for periodic medical examinations has been under way for several years. It has been advocated by public health authorities, non-official health organizations and insurance companies, and widely endorsed, in principle at least, by the medical profession. Among a few medical groups, in association with unofficial health agencies and notably in the case of at least one medical institution founded frankly as a commercial though laudable enterprise, the campaign up to the present time may be deemed a success, but it would be very difficult to become enthusiastic over the part taken in it by the medical profession as a whole.

Finally, the anti-diphtheria campaign, launched under impressive auspices and widely heralded under the slogan "No diphtheria in New York State by 1930," has been under way for some months. Much excellent publicity material has been scattered broadcast. The State Medical Society and its constituent county societies have generally endorsed it. The State and local departments of health, boards of education, non-official health organizations and insurance companies have done their part. I believe that the results are already evidenced by the remarkable fall that has taken place in the morbidity and mortality rates from diphtheria not only in this State but elsewhere in the country where a similar campaign has been actively carried on. How large a share has the

of invisible enemies, hampered by ignorance and superstition, the people cast the responsibility for their sufferings on an avenging God, prayed and cursed and died. When wave after wave of disease had threatened the very foundations of civilization, it began to dawn upon the consciousness of the more observant members of the medical profession that the spread of plagues was not an act of God nor brought about by climatic conditions nor the influence of astral bodies, but due to exposure of the well to some unknown emanations from the body of diseased persons or articles of food and clothing which had been contaminated by them. In other words, these pioneers in medical science awoke to the first conception of what we know and describe today as infection. As a corollary there followed the first feeble but intelligent efforts of prevention. In spite of the numerous nostrums and procedures, the use of which found many advocates and victims, and the willingness of many people to follow the advice of each newly fashionable quack and charlatan, a human tendency which not a few of their descendants exhibit today, the recognition of the value of personal and civic cleanliness, proper and prompt disposal of the dead, quarantine of sick persons, often too vigorously and brutally carried out, and the destruction by fire of infected material, marked the dawn of preventive medicine. It was a long step from these crude beginnings to what may be regarded as the birth of specific preventive therapy given to an over-burdened world through the power of observation of William Jenner, and a still greater one to that period when by the development of microscopic technique, the bacterial cause of various infections was positively established and logical procedures adopted in all of the more advanced countries to prevent the spread of disease from the sick to the well. The causes of a few diseases having been definitely established, within comparatively few years science developed methods of specific prevention, at first by making it possible to confer upon susceptible persons passive and but temporary immunity against immediately threatening infection as by the use of antitoxin against diphtheria. Very recently the ability to confer active and lasting immunity, not only against diphtheria by the employment of toxin antitoxin but hardly less important against typhoid fever by the inoculation of killed specific organisms, was made available as the result of scientific research. Immunity against many other infections has already been made possible with greater or less success. So much has been written and spoken of these latter day triumphs of medical science that it would be useless for me to do more than to touch upon them at the present time. Their importance to the welfare

of humanity can not be over-estimated and nothing but blind neglect on the part of the people to take advantage of the blessings which science has already bestowed, and will continue to bestow, can prevent the coming of that time, perhaps far distant, when suffering and death from the common infectious diseases, and their remote consequences, will become a rarity and regarded as a disgrace to a civilized community.

The establishment of official public health work is of comparatively recent date. In this country, although it has made vast strides during the past decade, it is but in its infancy. That the protection of life and health is a governmental function, and one of its most sacred obligations, has long since been generally recognized, and thus has come about the custom of recruiting from the ranks, mainly of those learned in the medical sciences and sanitation, individuals who shall direct and supervise measures for the protection of the public health.

The importance of the work of departments and boards of health—national, State and local—is being daily recognized, the personnel better qualified to perform its various duties, and funds for the support of the work, while yet in many cases pitifully inadequate, notably increased. The sphere of activities of official public health is constantly widening with the inevitable result that the question becomes more and more insistent as to what constitutes the legitimate field of official public health work, first in so far as it seems to enroach upon the domain of other branches of government and second on the private practice of medicine. Without a great deal of mental effort, it may be shown that practically every human activity is directly or remotely related to public health, and there is today an unquestioned tendency to over-load public health service with functions which, at the present time at least, it is not equipped to exercise, while on the other hand, notably in the case of the federal government but also in States and local communities, indisputable public health functions are assigned to departments, bureaus and agents of government which, only by the wildest stretch of imagination, logically belong to them and which, in many instances, they are totally unable or unwilling to perform.

In this State we are about to conduct our public affairs under a reorganized and simplified form of government. Time and experience will unquestionably bring about many changes in detail of the plan proposed. With wise leadership and public support, it is to be hoped that a very definite understanding may be arrived at and embodied in law as to what does and what does not constitute an official duty of the health authorities.

not exactly a clear one in the minds of many surgeons unless it has fallen to their lot to have done considerable cadaver work previous to entering upon their active surgical career. However, very definite knowledge of this space is necessary to the surgeon who attempts operative procedures in this condition. The most simple, though not strictly anatomical description of this space, is by Barnard². He considers this space as being divided into intraperitoneal and extraperitoneal portions. The intraperitoneal portion is subdivided into four separate and distinct spaces by the falciform, coronary and right and left lateral ligaments of the liver. This gives arbitrarily, a right and left anterior space and a right and left posterior space in the intraperitoneal portion. The extraperitoneal portion consists of two separate areas, the right between the uncovered layers of the coronary ligament and the left above the left kidney.

There are many different etiological factors in subdiaphragmatic abscess. About two-thirds of the abscesses are due to infection from intraperitoneal viscera, the remainder are due to extension from extraperitoneal organs or from more distant sources. Infection of the subdiaphragmatic space may take place by direct extension, by lymphatics or by blood vessels. If is questionable if subdiaphragmatic abscess does result primarily from infection through the portal vein which admittedly may cause hepatic abscess. The stomach, duodenum, liver, gall bladder and appendix are the abdominal viscera in which infection most commonly arises. Of these organs the stomach and appendix are the most frequent offenders. A study of statistics of a quarter of a century ago shows that the stomach was most commonly the primary focus but today with the refinements of modern diagnosis of gastric lesions, the stomach as a focus has fallen far behind the appendix. The most common source of infection without the peritoneum is the kidney. Even distant abscesses or infections result occasionally in the formation of pus beneath the diaphragm. The organisms most commonly found in subdiaphragmatic abscesses are colon bacilli, streptococci or anerobes.

The pathological findings in cases of subphrenic abscess are varied. Primarily they depend upon the source of the infection, the infective organism, the duration of the abscess and its location. The abscesses may be single or multiple. They are commonly trabeculated or have partitions which often results in inadequate drainage from operation. It is not uncommon to find a series of communicating abscesses connected by small sinuses. Following infection of the subphrenic space, two or three weeks must elapse before definite abscess formation takes place. Gas is found in the abscess quite frequently, rarely the abscess contains nothing but gas. The contents of the abscess depends upon

its location and duration. Essentially the products of liquefaction of broken down tissues are present. If the liver is involved, then destroyed liver tissue may be encountered. When the abscess is the result of a rupture of an ulcer of the stomach or duodenum, a sinus may exist between the two but this is not the rule, for most perforations close with the development of the inflammatory reaction incident to the formation of the abscess. Subdiaphragmatic abscesses occur more commonly upon the right side than the left, bilateral abscesses are rare.

The symptoms of subphrenic abscess vary with its location, extent, cause and duration, they are frequently overshadowed by the symptoms of the primary condition. As subphrenic abscess is so commonly the result of intraperitoneal infection, its presence should be suspected with the development of signs of extension of infection, especially when these follow operative procedures. The onset is often insidious with no localizing signs at all—the patient simply continues to lose weight and strength without apparent cause. The onset may be long delayed after operation for the primary condition. Eisendrath³ cites a case in which symptoms were delayed for one year after appendectomy. On the other hand, the onset may be sudden with rigor and severe pain. Fever is perhaps one of the most characteristic symptoms of subdiaphragmatic abscess. It is of the church steeple type showing many variations. Chills usually occur at some stage in the disease. The pulse generally is in keeping with the temperature as is the respiratory rate but the latter may be normal.

Pain is commonly complained of at the costal margin with radiation to the back. Tenderness over the area is likewise a common finding. It may be absent however. If the location of the abscess is superficial, bulging of the chest wall may be noted. This is present in about sixty per cent of the cases. In some instances there may be oedema of the overlying soft parts with dilation of the superficial veins.

Cough likewise occurs frequently and is of the catchy diaphragmatic type. It is a very distressing symptom. Hiccough and vomiting occur in about half of the cases at some stage in the disease. As the disease progresses, loss of weight and anemia ensue. In occasional instances, the abscess ruptures into a bronchus with profuse fetid expectoration. Ullman and Levy⁴ cite a case in which this occurred and the case reported below also illustrates this complication.

Because of the elevation of the diaphragm on the side of the abscess with compression of the lung, chest examination often reveals signs similar to empyema or a basal pneumonia. In fact, subphrenic abscess is frequently mistaken for one or the other of these conditions. Respiratory movements of the affected side are usually restricted. The liver is frequently pushed down-

general medical profession taken in this work? From official reports received by the State Department of Health from district State health officers and local health officers and innumerable personal interviews with practicing physicians, I am prepared to state without fear of contradiction that, up to the present time, the great majority of the medical profession has done little or nothing to bring about immunization against diphtheria among their private patients. As I pointed out in an address before the State Medical Society at its last meeting, in spite of the fact that this campaign has been designated as one of five years' duration, as a matter of fact it is one which must be carried on indefinitely or for many years to come if the State is to be kept free or practically free from diphtheria. For that reason, it is a vital necessity that the medical profession take an active part in its conduct. It is hardly conceivable that the general immunization of children of pre-school age can be achieved, to any great degree, unless general practitioners make themselves responsible for immunization among their own patients, or such of them as are willing to have it done. I have tried faithfully to determine the cause, or causes, why the general practitioner has seemed to show indifference or hesitancy to take an active part in health campaigns and utilize, as a matter of routine, established preventive procedures. Many reasons have been given but the commonest, and I fear the most difficult to overcome, is the hesitancy and delicacy on the part of our best practitioners to take any action among their patients which would seem to leave them open to the charge of commercialism by seeking to increase their practice. There is further a question of so-called medical ethics which apparently deters many physicians from sending for their patients, notwithstanding the fact that they should be seen and advised as to conditions which require medical attention. This attitude of mind it not to be sneered at nor lightly cast aside, but I submit that it must be abandoned from sheer necessity if the medical profession is to do its full share in the

work of preventive medicine, and I firmly believe that the general practitioner is not doing his full duty to his patients if he does not keep constantly in touch with their physical condition, growth, development and protection against infection. This can not be done unless physicians in general will follow the example of a few of their number who regularly adopt the practice of sending for their patients at such intervals as they deem necessary for physical examination, regulation of the diet, habits of living, vaccination against smallpox, typhoid fever, when deemed necessary, and immunization against diphtheria, and I venture to predict that by so doing, physicians who have the confidence of their patients will find that confidence increased and their reputation for ethical practice untarnished. The gratitude of those who will appreciate the interest shown in their condition and the results which are certain to be evident in many cases, will more than outbalance the opinion of the few petty-minded individuals who will see nothing but ulterior motives and selfishness.

In conclusion, I have tried to show briefly, and I fear most inaccurately, that the human race, if it is to survive and go forward, must be protected against the ravages of disease in so far as that is possible. Only in the ranks of the medical profession, whether the work be conducted in an official or private capacity, and with the aid and cooperation of all unofficial organizations that have anything of value to offer and the great body of enlightened citizens, will such protection be forthcoming. The supervision of morals, except in so far as they involve personal and public health, may well be left to spiritual advisors, parents and guardians, but the responsibility for the present and future physical welfare of our race must be fully shared by all those who by professional calling and scientific knowledge are alone capable of assuming it. In this work there is glory, honor and satisfaction enough for all. May every one do his full share to the limit of his ability and opportunities.

SUBDIAPHRAGMATIC ABSCESS

Report of a Case with Unusual Termination

By ARTHUR M. DICKINSON, M D, F A C S, ALBANY, N Y

THE collection of pus beneath the diaphragm and in contact with it is known as subdiaphragmatic or subphrenic abscess. This condition is not to be confused with pyelophlebitis and hepatic abscess which have recently been so well discussed by Elason.¹

Barlow in 1845 was the first to recognize this condition in a living patient and describe his findings. Previous to this time, cases of subphrenic abscess had only been diagnosed at post-mortem examinations. Operation was first performed for subphrenic abscess in 1879 by Volkman.

The picture of the subdiaphragmatic space is

¹ Presented in abstract before the Albany County Medical Society February 9, 1926

were permitted by mouth. Two days later the enterostomy tube was removed as it had ceased to function and good results were obtained with enemata. There was considerable drainage by the cigarette drain which was being removed little by little until it was completely out on the eighth postoperative day. By the tenth postoperative day the temperature was not rising any higher than 100. The general condition of the patient was considered good, the wound was healing and the patient taking nourishment well. On the seventeenth postoperative day the temperature rose to 103. This was thought to be due to wound infection or an abscess in the pelvis. The temperature remained elevated and on the twentieth day definite resistance was noted at the upper angle of the incision. Attempts were made to re-open the wound in this location but without success. At this time the white blood count was 10,400. Two days later there was profuse drainage from the lower angle of the wound and with this development, the resistance at the upper angle of the wound disappeared but the temperature did not fall. Another white count was reported as 11,500.

By the thirtieth postoperative day, however, the temperature ranged between 99 and 100 and there was apparently nothing to worry about. Three days later the temperature was elevated to 103 and remained high. During this period repeated chest and abdominal examinations had been made but it was not until the thirty-fifth day that an area of dullness was noted at the base of the right lung, posteriorly. The leucocyte count at this time was 9,200. X-rays the next day revealed a probable subphrenic abscess on the right side. (See Plate 1). At this time aspiration with long needles of large calibre was tried in the 8th, 9th and 10th interspaces in varying locations from the anterior axillary line to the scapular line. The abscess could not be located. On the thirty-eighth day another blood count was done with the following report—leucocytes 14,850, erythrocytes 3,353,000, hemoglobin 76 per cent. Blood cultures taken at this time showed no growth after seventy-two hours. For five days after the unsuccessful attempts at aspiration, the temperature remained between 99 and 100 but on the forty-second day it rose to 103 again. The chest signs became more prominent. The area of dullness at the right base increased in size, increased vocal resonance was noted with slightly prolonged high pitched expiration and occasional fine rales. During this period, attacks of coughing became very marked, expectoration was profuse and vomiting often followed the fits of coughing. No pain was complained of at any time. Nevertheless the condition of the patient was becoming progressively worse due to high temperature, toxemia and lack of nourishment. On the forty-fourth postoperative day further



PLATE I—Note elevation of diaphragm on the right side, clear pleural cavity, absence of fluid in costophrenic angles, apparent cupping of diaphragm.

X-ray examination was made to aid in localization of the abscess. The inability to locate the abscess with repeated needlings was the reason for delay in operation. In spite of these failures in locating the abscess, it was deemed wise to proceed with operation as a method of last resort.

Two days later, under gas and oxygen anesthesia, aspiration was again performed with negative results. The tenth rib on the right side was then exposed and about 10 cm. of it resected, beginning at the posterior axillary line and extending forward. The pleura was then incised and as adhesions between its two layers were present, the diaphragm was opened. The abscess was diligently searched for with finger, clamp and aspirating needle but could not be located. After a half hour had been consumed in this unsuccessful hunt for the abscess, it was deemed wise not to inflict further insult upon the patient and the wound was closed.

The shock of operation was considerable but was very successfully treated with glucose and insulin. Thirty-six hours after operation the patient developed a severe toxic nephritis. The output of urine fell to less than ten ounces in twenty-four hours and the urine was loaded with blood cells and casts. Under treatment this condition was relieved but not until two weeks before the patient's discharge from hospital was the urine free from all evidence of renal irritation. Following operation the general condition of the patient improved. There was less cough but the temperature remained between 101 and 102. On

ward on the side of the abscess. The leucocyte count in subdiaphragmatic abscess varies. It commonly shows an increase but there may be an actual leucopenia in patients with lowered resistance.

The X-ray is probably the most valuable aid in diagnosing this condition. Lewald⁵ states "In view of the many cases recently reported of difficulty encountered in the diagnosis of subphrenic abscess, resulting in delayed operative procedures, it appears desirable to stress the roentgen ray diagnosis of this condition." He recommends several pictures in different positions for comparative purposes and study with the fluoroscope. The diaphragm, on the affected side is usually elevated and may show some cupping. The costophrenic angle is not obliterated as it is in pleural effusions. A gas bubble may be observed between the liver and diaphragm. In the absence of a gas bubble and a definite fluid level, the X-ray diagnosis is more difficult. Cottle⁶ describes a case in which the diagnosis was in dispute for three and one-half months.

The principal conditions with which subphrenic abscess is liable to be confused are pneumonia and empyema. Usually these can be eliminated by careful history taking, a searching physical examination and a co-operating radiographer.

The use of the aspirating needle for diagnosis and as an aid to localization of the abscess is not without dangers. It is very easy to pass through the pleural cavity and diaphragm and upon withdrawing the needle, infection is carried into the pleural sac. Also unless one is absolutely sure of just where the point of the needle is, it is unsafe to attempt differentiation between empyema and subphrenic abscess by this means. In some instances it is impossible to locate the abscess with a needle even after you are aware of its existence.

The prognosis in cases of subdiaphragmatic abscess should be very guarded. At least eighty per cent of patients not operated upon die. About twenty-five per cent of those operated upon and have the abscesses drained, also die. This gives a mortality rate in all cases of over fifty per cent.

Treatment consists of surgical drainage of the abscess. This is not quite as simple as it sounds. The first difficulty is that of locating the abscess and the second is the choice of the safest route for approach and drainage of the abscess. Depending upon the location of the abscess, the method of approach will vary. There are two general routes, one through the chest and the other through the abdomen. The danger of spreading infection to the pleura or peritoneum is great. Mechanically it is much easier to prevent soiling the pleura than the peritoneum and for this reason most operators prefer the transpleural approach to the abscess. In abscesses of the left anterior space approach and drainage must be through the peritoneum. This is also

true in some instances of abscess of the posterior space on the left side.

Probably the safest method of approach through the pleural cavity is that described by Lockwood⁷. The incision is located in the 9th, 10th or 11th interspace over the area of bulging. If this is not present, the incision is started at the posterior axillary line and carried forward. By undermining the skin it is possible to suture this to the diaphragm later on, thus walling off muscle and fascial planes from infection. The ribs are spread (rarely is resection necessary) and the parietal pleura sutured to the diaphragm thus walling off the pleural cavity. The skin is then sutured over the muscle as noted above. If conditions warrant it, after smearing over the suture lines with sterile vaseline, the abscess may be opened through the diaphragm at once. In some instances it may be wiser to wait twenty-four or forty-eight hours before proceeding with this step. After the abscess is opened, one must avoid breaking down adhesions which may be acting as a barrier to extension of infection to the greater peritoneal cavity. As the abscesses are frequently multiple or sacculated, one must make sure that every recess is cleaned out thoroughly. Drainage in the form of a two way tube is inserted and the wound loosely packed, so that it will heal by granulation.

REPORT OF CASE

Mr C B P, age 22, entered the Memorial Hospital on Sept 14, 1925, with symptoms of acute appendicitis, but refused operation until the following day. At operation it was found that the appendix was gangrenous and walled off quite well. There was no free purulent exudate. The appendix was located behind the cecum and was placed rather high up and more toward the midline than usual. Ligation of the appendix was done and it was removed with cautery. The stump was not sewn over. As this was the type of case in which the subsequent development of an ileus might be anticipated, a loop of ileum was picked up and a tube enterostomy was done by burying the tube in a fold of gut. The intestine was then dropped back into the peritoneal cavity. A cigarette drain was inserted in the right side of the pelvis and the incision closed by layer suture.

Postoperative treatment consisted of replacement of fluid loss by rectal, subcutaneous and intravenous routes, modified Fowler position and plenty of morphia. On the day following operation, the abdomen was soft and the enterostomy tube was draining well. The temperature ranged between 101 and 103. For the following two days, the abdomen was hard and distended with the temperature still elevated. By the fourth day the abdomen was much softer and only moderately distended. On the fifth day the condition of the patient was so satisfactory that fluids

THE MEASUREMENT OF INTRACRANIAL PRESSURE—VENTRICULOMETRY*

By K WINFIELD NEY, M.D., NEW YORK CITY

IN the experience of most clinicians, the determination of increased intracranial pressure often resolves itself into a rather vague and uncertain affair. The general effects of increased pressure, namely choked disk, headache and vomiting have been the only signs upon which it has been possible to establish a diagnosis. These clinical signs however, particularly in early cases, are often so poorly developed that the clinician is compelled to resort to rather prolonged and often hazardous observation before their adequate development will permit him to venture a diagnosis of increased pressure with that degree of certainty which will justify a recommendation of radical procedures. So often indeed is a careful examination of the eye grounds neglected that the unhappy victim of an increased intracranial pressure is subjected for months and occasionally years to various medical and surgical procedures directed toward the alleviation of headache and vomiting, without appreciation of the underlying cause. Occasionally too, the typical picture of choked disk is not present, and in its absence the advent of persistent headache is very likely to be attributed to gastrointestinal disorders, accessory sinus disease, eye strain, migraine, etc. A failure to recognize an increase of intracranial pressure is indeed a catastrophe to the patient, and the delay is often responsible for the development of advanced cerebral disturbance—recognized only when it has become a terminal affair.

In every branch of surgery, our failures may be often attributed to delayed diagnosis, permitting pathologic processes to advance to that degree of anatomic destruction which precludes sufficient function to sustain efficiency, or even life. It is a common experience to see patients with advanced degrees of intracranial pressure who have sought relief from headache, vomiting and visual disturbances for many months before the attention of the medical advisers has been directed to the central nervous system by the advent of paralysis, convulsions or blindness. In many instances, these unfortunate occurrences of delayed recognition of increased pressure have not been due to the lack of appreciation of the condition on the part of the clinician, but solely to the fact that there existed no certain means of determining an increase of intracranial pressure, because the usual signs upon which such a diagnosis could be made were too ill-defined to arrive at a conclusion.

Spinal Puncture and Ventricular Puncture
The advent of the spinal mercurial manometer has served as a valuable adjunct to lumbar puncture and has proved of inestimable value in the diagnosis of certain pressure increasing lesions—particularly head trauma. The occasional fatality following lumbar puncture when attempted in certain types of increased intracranial pressure, has caused many clinicians to hesitate before venturing a spinal tap in chronic increases of pressure. The danger in spinal puncture is due largely to the fact that in marked degrees of intracranial pressure the tonsils of the cerebellum become herniated in the foramen magnum, resulting in strangulation of the medulla, when the supporting fluid of the spinal canal has been released by lumbar puncture. Furthermore, we have repeatedly demonstrated that the pressure readings of spinal puncture may vary greatly from the readings following tap of the ventricles.

Measurement of Intracranial Pressure
While doing a series of air injections for ventriculography in suspected brain tumor cases, we were impressed by the force with which the ventricular fluid was projected into the syringe connecting the ventricular needle. As a result, we arranged an attachment by which the needle could be easily connected with a mercurial spinal manometer, making it possible to accurately measure the intraventricular pressure, thereby determining the degree of intracranial pressure. The procedure of measuring intraventricular pressure we have termed "ventriculometry," and this, combined with Dandy's method of ventriculography, in which air is injected into the ventricles and their size and shape determined by roentgenological examination, has served as an admirable supplement to careful neurologic examinations and has made possible a diagnosis in many obscure conditions where clinical neurology alone, without these aids, had been seriously handicapped.

The value of ventriculometry lies not only in definitely determining an increase of intracranial pressure, but also in accurately measuring the degree of that pressure. In our clinic, this has become a routine procedure in all cases where the symptomatology suggests a deviation from normal intracranial pressure. We early demonstrated that inhalation anesthesia markedly increases intracranial pressure, and found that in order to obtain accurate pressure readings it is necessary to make the ventricular tap under local anesthesia, with the patient lying on his side, with the midline of the head

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 30 1926

the ninth day after this operation, the wound of the chest wall suddenly opened up and about one pint of pus was evacuated. Drainage now continued from the wound. Cough was increased at times and the sputum contained foul-smelling green pus, which showed upon culture streptococcus vididans as did cultures from the abscess. From this time on, the temperature curve gradually fell and the improvement in the patient's general condition took place. He was eating and sleeping well but still had occasional bouts of coughing which would often be preceded by an elevation of the temperature. By the third week after the second operation, the patient was taking fresh air treatment out-of-doors and the temperature was not rising above 99. X-ray examination at this time showed conditions very much improved. (See Plate 2)



PLATE II—Note improvement as compared with Plate I

By the seventy-third day the patient's condition was considered good. Both operative wounds were healed. The area of dullness at the base of the right lung was much smaller and breath sounds appeared normal. There was noted some limitation of expansion at the base however. The finger nails of the patient were slightly blue but there was no clubbing of the tips of the fingers. The pulse rate was 72, the temperature 99, the respirations 20. The patient

was strong physically, he walked about, he ate and slept well but still had attacks of productive coughing although the sputum was no longer purulent. He was discharged from hospital on the seventy-fourth day and placed under care of his family physician.

A report from the family physician two months after discharge of the patient stated that the patient's temperature had been absolutely normal for over two weeks. There was still some cough, especially upon retiring, but little expectoration. A marked gain in weight and strength had occurred. A letter from the patient four months after discharge from hospital was very illuminating. The patient reported that he had not had a coughing spell for over four weeks. He was still gaining in weight and strength, could run up and down stairs, had no pain at all. All he noted was lack of endurance. He felt that he was cured.

SUMMARY

The case reported above emphasizes several important points relative to subdiaphragmatic abscess.

1 The abscess was secondary to a ruptured appendix located high up in the abdomen.

2 The onset of the abscess was insidious, being recognized only after repeated chest examinations.

3 The variance of the leucocyte count in this condition.

4 The difficulty of locating the abscess in some instances.

5 The value of the X-ray in diagnosis.

6 The development of a fistulous communication between the subphrenic abscess and the lung which was a very important factor in the recovery of this patient.

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the blood pressure has risen, so that under such conditions the relief of an increased intracranial pressure has been followed by an elevation of blood pressure. In acute head traumas, an elevation of blood pressure is often observed during the effort of medullary compensation, this increase apparently takes place only in the primary reactions of acute pressure changes.

Pressure Increasing Lesions Cerebral tumors rarely produce general pressure symptoms before they have attained considerable size, and often large tumors are tolerated without producing visual changes, gastric disturbance, or discomfort. Certain tumors, however, because of their location, even though small in size, may produce hydrocephalus, with general pressure symptoms, or localized pressure on important cerebral centers, creating profound focal disturbance. Tumors of this nature, however, because of interference with important centers, receive more early recognition than large tumors occupying the so-called "silent areas." In our experience, the majority of brain tumors involving silent areas, and coming to operation because of general pressure signs or convulsive phenomena, register an intracranial pressure of 25 to 35 mm Hg. Several cerebral cysts, however, though producing some deformity of the ventricles, have, particularly when associated with convulsive phenomena, shown only moderate increase of pressure—10 to 14 mm Hg. Other cysts have shown an increase comparable to the average silent tumor. Pressure readings do not serve to differentiate between endotheliomas and gliomas, both of which seem to produce about the same degree of pressure elevation.

Hydrocephalus The highest pressure readings found in this series, with one exception (brain abscess with general encephalitis) have been found in the so-called "communicating" type of hydrocephalus. In these cases, the pressure has varied from 40 to 60 mm Hg. These communicating types of hydrocephalus are usually due to inflammatory or tumor obstruction about the brain stem blocking the escape of cerebrospinal fluid from the posterior fossa to the cerebral subarachnoid spaces. There is, however, one type of communicating hydrocephalus, due to syphilis, where the blocking is less complete and the elevation of pressure is comparatively low—14 to 20 mm Hg, and apparently more or less intermittent, the periods of pressure elevations usually being attended by acute psychomotor manifestations—often rapidly relieved by tapping the ventricle. Congenital types of hydrocephalus, due to occlusions of the iter, probably because of the decompressing effect of cranial enlargement, rarely show the high pressure changes observed in the communicating types of the adult. These congenital (non-communicating) types of hydrocephalus may

exhibit various degrees of intracranial pressure (8 to 40 mm Hg). We have observed a few cases with greatly enlarged heads, showing a normal pressure, these cases had been attended with such a degree of dilatation that the ventricles had probably ruptured into the cisterna through the thin cerebral cortex at some point, producing spontaneous relief. Hydrocephalus induced by cerebral or posterior fossa tumors rarely incite degrees of pressure above 30 mm Hg.

Brain Abscess and Sinus Thrombosis Cerebral abscesses produce about the same degree of pressure elevation as cerebral tumors, and both may be accurately localized by ventriculography. In cerebellar abscesses of otitic origin, the tendency is to produce higher degrees of pressure than cerebellar tumors, because of a frequently associated sinus thrombosis. A lateral sinus thrombosis will usually increase intracranial pressure about 8 mm Hg, its presence may be readily determined during ventriculometry by compression of the jugular veins. Compression of a normal jugular vein will elevate the pressure about 8 mm Hg. A compression of either jugular vein which fails to elevate intracranial pressure indicates a corresponding lateral sinus occlusion.

In cerebellar abscesses the pressure inciting factors are threefold (1) abscess, (2) hydrocephalus, produced by posterior fossa pressure, (3) lateral sinus thrombosis in cases of abscess developing from otogenic infections and spreading to the cerebellum through the medium of an infected sinus. The abscess is usually located on the side of the thrombosed sinus, which may be readily determined by differential pressure readings during jugular compression.

Trauma and Infections The cerebrospinal fluid gains exit from the subarachnoid spaces of the cerebral cortex by filtration through the arachnoidal villae into the cerebral veins and venous sinuses. These arachnoidal villae may become occluded by an excess of cells in the cerebrospinal fluid, producing moderate elevation of pressure. Cerebral injuries associated with mild degrees of hemorrhage in the subarachnoid spaces will produce pressure symptoms due to arachnoidal villae blocks, comparable to those produced by the formation of relatively large hematomas, but are usually not attended with focal symptoms. The arachnoidal villae, acting as filters to the cerebrospinal fluid, collect the circulating red or white cells as the fluid filters through and interfere with further filtration, producing an excess of fluid on the cortex—a condition not to be confused with true cerebral oedema. Decompression and repeated spinal punctures tend to relieve the fluid pressure caused by arachnoidal villae blocking. When neglected, however, and the pressure is

(corresponding to the longitudinal sinus) on a plane with the axis of the spinal canal. The readings should be made with the patient quiet and the mouth open, which seems to prevent straining. Many patients who have experienced both ventricular and spinal taps are emphatic in their assertion that the ventricular tap was less painful, and certainly in the presence of an increased intracranial pressure, ventricular puncture is decidedly less dangerous. Though the procedure is quite simple, an accurate technic must be mastered and maintained in doing ventriculometry, and should not be attempted by one who is unfamiliar with all the technical points.

Pressure in Different Lesions Up to the present time we have made 128 ventriculometric readings. We assume from this series that the normal intraventricular pressure is approximately the same as the pressure of the spinal fluid, namely, about 8 mm Hg. We have found pressures ranging from zero to 65 mm Hg. The lower pressures—cerebrospinal fluid hypotension—are to be found mostly in the after effects of cerebral vascular thrombosis with cerebral atrophy, and certain types of epilepsy and dementia praecox. Higher types of pressure encountered in this series have been encephalitis, as high as 65 mm Hg, the so-called communicating type of hydrocephalus in adults, 40 to 60 mm Hg, cerebral tumors and abscesses, 25 to 35 mm Hg, hydrocephalus, congenital, 8 to 40 mm Hg, hydrocephalus, due to posterior fossa tumors, 15 to 30 mm Hg, chronic brain injuries showing post-traumatic neuroses, 16 to 24 mm Hg. The range of pressure increasing lesions of this series represents the minimum and maximum readings we have found in each type of case, though doubtless further experience will reveal that these lesions may even show a wider range of pressure.

Reactions to Pressure Changes The measurement of intracranial pressure has demonstrated that undoubtedly cerebral (cortical) activity is greatly influenced by intracranial pressure, and we have frequently noted that mild increases—14 to 24 mm Hg—are almost invariably attended with general nervousness, restlessness, irritability, tremors and exaggerated reflexes. In acute conditions, as the pressure increases, the irritability and restlessness progress to delirium and finally to stupor, coma and death. In chronic conditions, however, with slowly increasing pressure, patients seem to lose their irritability, restlessness, exaggerated reflexes and tremors, showing mental confusion and sluggishness accompanied by headache, vomiting and general weakness, with visual disturbances, emaciation, loss of strength and death. In acute elevations of pressure the trend of symptoms is rapidly progressive with the increase of pressure, in chronic elevations, the

irritable symptoms are usually replaced by sluggish reactions. The sluggish reactions of the impaired nervous system, due to increased pressure, are decidedly less conspicuous in acute conditions because of rapid progression. In cerebral hypotension, the reactions are less constant and the cerebral cortex here seems to show a tendency toward apathy.

Eye Grounds in Intracranial Pressure A comparative study of the eye grounds and ventriculometric readings seems to indicate that in both acute and chronic increases of intracranial pressure the earliest changes are to be seen in the retinal vessels, principally in the veins which first become congested (darker in color), and finally engorged and tortuous. From the stage of congestion, the veins gradually dilate until they become several times the size of the arteries, with the congestion and engorgement of the veins, the disks become increasingly heightened in color. In chronic increases of intracranial pressure, the occurrence of oedema ultimately elevates the disk edges, producing typical papilloedema or choked disk. As the venous engorgement becomes intense, it is common to find retinal hemorrhages. When the pressure in or upon the optic nerve becomes sufficiently great, degeneration of nerve fibers and atrophy supervene, the pressure within the sheath of the nerve is relieved by the degeneration of fibers (loss of substance), the oedema and venous engorgement slowly subside and the blurred red disk finally assumes the appearance of atrophy, becoming pearl white, and showing a very marked contrast between the nerve head and the pink color of the surrounding eye grounds. Apparently many oculists fail to appreciate the significance of dilated, congested or engorged veins, and await the development of definite papilloedema before considering the possibility of increased intracranial pressure.

In acute brain injuries, the engorgement of the retinal veins and the resulting tortuosity and dilatation rarely progress to true papilloedema, the acute pressure usually producing death before medullary compensatory changes can supervene, as occurs in the more slowly progressive elevations of pressure.

Intracranial Pressure and Blood Pressure A comparative study of cases in this series seems to indicate that intracranial pressure has but little influence upon blood pressure. In a number of instances where the systolic pressure has been above 200 we have found a relatively low intracranial pressure, and in the majority of cases with high intracranial pressure, the systolic pressure has been below 110. In most of the latter, the activities of the individual had been greatly impaired through headache and vomiting, but with the relief of intracranial pressure and the resumption of normal activities,

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For list of officers of County Medical Societies, see JOURNAL of October 1, 1926, advertising page xxvi.

RECORDING PROGRESS IN CIVIC MEDICINE

The last few issues of this JOURNAL have recorded many items of progress in the practice of civic medicine and public health in New York State. Medical societies all over the country are confronted with the demand of the people for defense against preventable diseases. Abstractly, physicians realize their duty to provide that defense along every possible line, but concretely nearly every individual physician excuses himself from seeking to practice preventive medicine. The past year or two has witnessed a growth of consciousness among family doctors that each

individual doctor has a grave responsibility toward of the members of the families in his own practice, and impersonally toward the community. The discharge of that responsibility is largely through the county medical societies.

A spontaneous movement for the active practice of civic medicine and public health by county medical societies has developed in New York State to such an extent that its record is well worth studying. The evidence is contained largely in the accounts of the District Branch meetings.

allowed to continue, many of the arachnoidal villae may become permanently occluded, leading to chronic increase of intracranial pressure, which is usually manifested by headache, nervousness, irritability, inability to concentrate tremors and exaggerated reflexes—post-traumatic neurosis. The same group of symptoms may follow infectious processes, which increase the number of cells circulating in the cerebrospinal fluid, and also produce arachnoidal villae blocks. In these types of post-traumatic or post-infective neuroses, the intracranial pressure usually registers between 16 and 24 mm Hg.

The importance of early recognition of increased intracranial pressure cannot be over-emphasized. The frequency with which neurologic surgeons observe the ill effects of delayed recognition of intracranial pressure and the disastrous results following many attempts at nasal accessory sinus surgery for the relief of papilloedema, lead us to be very emphatic in the statement that no operative procedure upon the nasal accessory sinuses for the relief of papilloedema can be considered justifiable until an increased intracranial pressure has been definitely excluded. Undoubtedly, the measurement of intracranial pressure will reveal pressure alterations in other diseases of the central nervous system than those considered in this report. Certainly, in suspected pressure increasing

lesions, the measurement of pressure will assist in confirming diagnosis, and serve to differentiate those lesions which exhibit limited degrees of pressure elevation.

CONCLUSIONS

- (1) Ventriculometry consists in measuring the ventricular pressure, thus determining the degree of intracranial pressure.
- (2) Tapping of the posterior horns of the lateral ventricle for pressure determination is a safe procedure, with considerably less attending discomforts than spinal puncture.
- (3) Inhalation anesthesia greatly increases intracranial pressure, hence ventriculometry will furnish reliable readings only when done under local anesthesia.
- (4) The determination of the degree of intracranial pressure provides a valuable differential diagnostic aid in pressure increasing lesions.
- (5) Persistent vomiting, headache, visual disturbance, or decreased or augmented psychomotor manifestations should always suggest the possibility of abnormal intracranial pressure changes.
- (6) Operations on the nasal accessory sinuses for papilloedema are never justified until the absence of an increased intracranial pressure has been definitely determined.

RECENT STUDIES OF GONOCOCCUS VAGINITIS OF INFANTS*

By DR E J WYNKOOP AND DR. EDGAR O BOGGS, SYRACUSE, N Y

From the Hazard Memorial Laboratory, Syracuse Memorial Hospital.

At the 1923 meeting of this society, a preliminary report on "The Occurrence of Gonococci Vaginitis in the New-born" was read and subsequently published in the New York State Medical Journal for October, 1923. This work was undertaken as a part of the effort to ascertain the source of an epidemic of gonococcal valvo-vaginitis which broke out in the children's wards of Syracuse Memorial Hospital. The present report is simply a continuation of the previous work which consisted of the routine examination of vaginal smears taken on the first, fourth and thirteenth days after birth. We wish to add to the 163 cases published, 435 additional. These smears were examined for Gram negative intracellular diplococci, and the presence or absence of polymorphonuclear leukocytes and the form and staining qualities of the prevailing type of organism.

In this second series as in the first, not a smear showed Gram negative intracellular diplococci

Thirty-five (35) per cent showed no polys at any of the three examinations, 16 per cent showed polys on the first day, while they were present in 58 per cent on the 13th day. The type of bacteria present seemed to determine to some extent their presence or absence, the Gram positive cocci being associated in a considerable number of cases, with large number of polymorphonuclear leukocytes. On the other hand the Gram positive bacilli were usually the predominating organisms in those cases showing no pus cells. Clinically, the cases showing large numbers of pus cells differed in no respect from those which had negative findings as to pus cells and bacteria. During the time these studies were going on four (4) cases of gonorrheal ophthalmia were discovered, none of which developed a g c vaginitis.

Conclusions (1) The occurrence of Gonococci Vaginitis in the New-born must be at least extremely rare. (2) The occurrence of pus cells in the vaginal secretions seems to be of little clinical significance.

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926.

the sixty county societies are supreme. However, it is fortunate that the question of supremacy has never come up to disturb the harmony that has always existed between the State Society and its component county societies.

The following is an attempt to index the items in which the Medical Society of the State of New York is of value to its members.

A As a part of the National body of physicians, The American Medical Association

1 Privilege of becoming a fellow of the A. M. A.

2 Representation in the governing body of the A. M. A.

3 Participation in all that the A. M. A. stands for, such as ethics, standards of medical practice, studies of hospitals and medical schools, investigation of drugs and new remedies, and of quacks and their remedies, and as a general clearing house of medical information

B To County Medical Societies

1 The maintenance of a central office for records of the members and officers of county societies

2 Field service and advice of the State officers, especially the executive officer

3 Assistance in graduate education and other activities of the county societies

4 The maintenance of standards of county society work

5 The adjustment of the relation of county medical societies to lay health organizations and to official departments of health

C To the individual members

1 The semi-monthly Journal

2 The annual Directory

3 Defense in malpractice suits

4 Laws for the benefit of the physicians and the public

5 An annual meeting with its scientific, administrative and social features

6 A study of State-wide medical problems, such as nursing, medical economics, industrial medicine, and health centers

7 The extension of fields of practice to include various phases of preventive medicine, such as periodic health examinations, prenatal advice, and the administration of diphtheria toxin-antitoxin

8 There is also the satisfaction of being an integral part of the organized medical profession of the county, the state, and the nation, of taking part in its activities, and of sharing in the benefits and joys of fellowship with medical brethren

LOOKING BACKWARD

THIS JOURNAL TWENTY YEARS AGO

Medical students a generation ago were regaled with discussions as to whether bacteria were plants or animals, and whether the science of bacteriology belonged to botany or zoology. The most obvious approach to the science of bacteriology was through the mushrooms and molds and yeasts, all of which were within the province of the botanists. But it was not botanists, but chemists and physicians who developed the science of bacteriology.

This Journal for November, 1906, discusses this development and says

"In times long past the doctor of medicine, in the interest of his peculiar therapeutics, was a botanist. Little did botany dream that the doctor would boldly open the front door of her ancient castle and walk away with her fairest flower, which now for a score of years has adorned the gardens of the sons of Sol."

"Bacteriology in twenty-five years has had given to it a vast amount of patient research, claiming the sole attention of more devoted men than have worked at botany in a hundred years. Most of these men are unknown to the world, but several hundred of them have contributed equally to the development of this

science. Botany had her great lights, some of the greatest men that any science has known. They have been but few, but they were all great men—Aristotle, Pliny, John Ray, Linnaeus and Asa Gray.

"It is interesting to observe that three of the five botanists were physicians, and two of these physicians were the greatest scientists of their respective centuries. But the greatness of these men was not manifested alone in botany, they were naturalists and pioneers in the field of zoology as well. Had they been living at the time of the birth of bacteriology, it is doubtful if it ever would have departed from botany."

"But the parting came. Bacteriology has grown towards humanity, and has become of infinite, practical, every-day usefulness to mankind. Botany is still the aloof, genteel, aesthetic science. For the bacteriologist, the suffering and dying beckon on. For the botanist the flowers in the meadows nod their heads, the pine trees sing softly their lullabies, and the breezes of summer bear upon their wings the odor of the wayside vines."

WHO PRACTICES MEDICINE?

"Why did you give up the practice of medicine?" is a question that is often asked of physicians who take full-time salaried positions with insurance companies, departments of health, medical journals, social associations, and other organizations which require the services of physicians

Are these physicians practising medicine?

Must they register under the revised practice of medicine act?

These questions have presented themselves for two reasons

1 A common opinion among family physicians seems to be that the salaried doctors have separated themselves from their fellows whose income depends on private practice

2 The Regents have received requests from salaried physicians asking whether or not they must register These requests are made in good faith, for in many instances physicians from other states are employed before they have had time to pass the examinations and secure licenses in New York If one salaried man of a group is excused from registering, then all the others in the group would be under a similar ruling

The legal definition of who should register under the practice of medicine act has not come up for decision It is to be hoped that the question never will be raised, but that every physician will register who does anything for which the degree of doctor of medicine is necessary

Physicians in private practice are urged to take an interest in those subjects in which the salaried doctors are specialists This means the practice of civic medicine and public health among the families of their patients, and also doing their part in the administrative work of

their county medical societies From this it is only a step to assuming a full-time administrative or scientific position with a department of health, or other organization that employs physicians The work of a family physician merges into that of a full time public health worker with no clear-cut line of demarcation between them

The success of the salaried physician depends largely on his intimate knowledge of medicine as practised by family doctors The insurance examiner, the health officer, the medical administrator of a lay organization, all must pass upon the work of family doctors at times, and advise them how to do it They practice medicine when they tell a family doctor what to do It would be to the benefit of all concerned if the medical administrators would go with the family doctors and do some of the work which they require of the family doctors

A physician holding a medical administrative position was recently on the witness stand and was asked if he still practiced medicine, and he maintained that he did, although he no longer examined private patients, or did surgical operations It would be well if every medical administrative physician should assert his claim that he is practicing a specialty in medicine, and should voluntarily register with the Regents under the Practice of Medicine Act The county medical societies have always welcomed these physicians as members, and have accorded them the same privileges and honors that are bestowed upon doctors in private practice It is assumed that every member of a county medical society practices medicine

WHAT DOES THE STATE MEDICAL SOCIETY DO FOR ME?

It is rather difficult to frame a satisfactory answer to the question that has often been asked privately at the District Branch meetings and other assemblies, "What does the Medical Society of the State of New York do for me?" Not that an answer is difficult to find, on the contrary, the answer involves so many items and ramifications that some important ones are likely to be overlooked The tangible immediate benefits may be quickly stated The intangible, inspirational effects are evaluated with greater difficulty

Then, too, there is the personal equation of the members,—whether or not they themselves put a value on what they receive The

benefits may be presented to them, but are they put to use? An excellent scientific article, for example, is of no use to a physician if it is not read To understand and appreciate what the State Medical Society does for its members, one must be interested in it and also in his county medical society

A further point to be considered is the relation of the State Society to the county societies Historically and practically, the county medical societies come first The members of the State Society are those physicians who are elected to membership by the several county societies The governing body of the State Society consists of representatives chosen by the county societies In the ultimate analysis,

nours later there was a chill followed by high fever, vomiting, delirium, and cyanosis and death occurred at 5 o'clock next morning. The diagnosis was foudroyant sepsis due to the staphylococcus. The hospital on hearing of this accident had the rest of the serum tested. Of three phials one was found sterile, one contained only the proteus, and the third contained the staphylococcus. The original motive of the doctor in immunizing this child was its unusual delicacy, for in addition to the exudative diathesis and nervousness there was much tuberculosis in the family. The hospital presumably supplied the serum free and without any guarantee of its sterility. The practitioner assumed that there had been bacteriological control and hence felt no responsibility to stop for tests. Attempts to fix responsibility appear to leave the onus on the government, local or central, because of the lack of a suitable control by the sanitary authorities. Most of the disadvantages and accidents of serum therapy are due to this lack of a central regulating authority which should supervise sera from the first step in manufacture up to the moment of injection.

Hemorrhagic or Vacuum Treatment of Boils
—This treatment has been used by Düker of the St. Norbert Hospital, Berlin, for the past two years. It must not be confused with the treatment of Bier—the suction-stasis produced by the Bier cups—for the vacuum produced by the author's treatment (known familiarly by the name of Kuhn, who first made it public in 1925) is much higher. The suction by the Bier treatment may be spoken of as slight—tenths of an atmosphere only—while in the Kuhn treatment it may go as high as half an atmosphere or more. In place of a mere stasis the effect is actual hemorrhage both within and around the furuncle. Moreover the vacuum is prolonged for a half hour to an hour. It amounts in a way to a form of autohemotherapy in which the patient's own blood is forced into the affected tissues. The apparatus consists of vacuum cups of different sizes and shapes, vacuum tubes of rubber with thick wall and narrow lumen, and a large syringe to produce aspiration. The author mentions no suction manometer in the clinical apparatus but has used one in his experiments and found that the suction produced reached 500 to 600 mm of mercury. To make the apparatus hermetically tight Düker caulks it, so to speak, with cotton and some thick tenacious substance with adhesive strips over all, this is seldom necessary except in certain localities like the nose, where coaptation of the rim of the cup is difficult. One early act of suction usually suffices. Evidently this treatment can promise superior results only in the first stages of fur-

uncles. The immediate result is loss of the tension and pain. The lesion is now simply left to itself and if not aborted the pus may easily be evacuated. Boils treated in later stages require a number of daily sessions.—*Deutsche medizinische Wochenschrift*, July 9, 1926.

The Antiquity of Syphilis—Professor H. E. Sigerist of the Institute for Medical History at Leipzig University has read critically all of the new material on this subject for the past two years and finds but two papers of real value. One is by the Japanese professor Dohi, whose writings have recently been mentioned in this JOURNAL, while the other is from the pen of Dr. Hildebrand of Duisburg. The former inclines to the American origin and holds that Vasco di Gama, the Portuguese circumnavigator, must have carried the new malady from the Iberian peninsula to the East Indian archipelago, whence it eventually found its way to China and Japan. The latent period was 1498 to 1505, the latter being about the year of the earliest outbreak at Canton. This is of course pure hypothesis for the earliest direct contact between the Europeans and the Sino-Japanese did not take place until many years after 1505, so that we have to assume that the disease traveled from port to port among the Asiatics after their first contacts with the Europeans. No evidence is adduced to show the existence of syphilis in Ceylon, the Malayan peninsula, or the Sunda Isles during this latent period or in the years which followed. Dr. Hildebrand inclines to the pre-Columbian European origin and quotes a number of new texts in justification, comprising Odo of Cluni (879-942 A.D.), Sextus Amarius in the XI century, Guillaume de Blois in the XII century, and St. Hildegard, also in the XII century. Perhaps the most convincing passage is by the latter, when he states in substance that "certain men who are addicted to venery fall into a general sickness in which the skin and flesh undergo an ulcerous decay and under the crusts which cover the broad ulcers the red flesh is seen." Professor Sigerist states that both Dohi and Hildebrand rest their cases on hypothesis although he himself is inclined to oppose the American origin. That which spread over Europe in 1495 was not a new disease but there was new knowledge of a disease as yet only imperfectly recognized.—*Deutsche medizinische Wochenschrift*, June 18, 1926.

Rat-Bite Virus in the Treatment of General Paralysis—In a preliminary report, H. C. Solomon, A. Berk, M. Theiler and C. L. Clay (*Archives of Internal Medicine*, Sept. 15, 1926, xxxviii, 3) describe their experiences in twelve cases of general paralysis in which the patients



MEDICAL PROGRESS



Sepsis—Professor Kaiserling opened a symposium on the pathology and therapy of sepsis at a session of the Verein für wissenschaftliche Heilkunde last April, in which he discussed the general nature of the process. The word itself is of course a misnomer for it meant originally putrefaction and in a more modern sense the action of putrefactive organisms on tissue already dead. That which we call sepsis involves the action of disease germs on living tissues. Usually but not invariably the process involves pus formation so that pyogenic organisms and especially staphylococci and streptococci are chiefly active. Sepsis must be distinguished from bacteremia and toxemia and for the sake of having a working definition we may visualize sepsis as the reaction of the organism to the introduction of pyogenic microorganisms into the circulation. According to the degree of reaction we have hyperacute, acute, slow, and chronic sepsis. We may also in place of the degree of the reaction speak of degrees of virulence of the organisms. In malignant sepsis we may imagine a high degree of virulence in conjunction with a patient of low resisting power. In the highest type the only lesion apparent when the patient is fatally overcome—perhaps on the first or second day—may be a little lymphangitis at the site of the inoculation. If the virulence is somewhat less and the patient lives four or five days, we may see extensive local mischief—necrosis, phlegmon, gas phlegmon, etc., while the blood and tissues in general show marked alterations, including hemolysis, high temperature, unusual warmth of the cadaver, cloudy swelling of the viscera, ecchymoses, etc. There is a well known danger to him who makes the autopsy in these cases. In different degrees of sepsis the endocardium seems equally menaced and we see malignant or ulcerous forms in acute, and vegetative forms in slow sepsis. As a rule the arteries escape this process but in rare cases we see a corresponding form of endarteritis.—*Deutsche medizinische Wochenschrift*, July 16, 1926

Gas Sepsis with Methemoglobinuria from a Slight Injury to the Finger—Paul Eichler reports a unique case of rapidly fatal blood poisoning as follows. A powerful young man while working with a circular saw in the local pencil factory cut the pulp of his finger end and received a first aid dressing in which some unknown oil figured. In 20 hours he showed evidence of infection and in two days and a half more was dead. In accordance with severest

sepsis constitutional symptoms developed first—lividity of the face and hands, collapse, vomiting, prostration, somnolence, pains in the frontal region and upper abdomen, low blood pressure, methemoglobinuria, staining of the skin. Blood cultures remained negative throughout. The local wound gaped but showed only slight inflammatory reaction. Spectroscopic tests of the blood showed the presence of methemoglobin. The red cells were much reduced in numbers from the intense hemolysis. A considerable leucocytosis had no significance as it was evidently only relative. Autopsy showed an extensive discoloration of most of the organs from blood pigment. In visualizing the case it was necessary to exclude poisoning with such substances as arsenic, nitrites, and acetanilid and this was readily done. Bacteriological tests of the scanty secretion of the wound showed a mixed infection comprising Fraenkel's gas bacillus which is known to cause methemoglobinemia, and is the only microorganism, aside from the malaria plasmodium, which ever manifests this property. The negative blood tests may therefore be disregarded and Fraenkel himself states that this is to be expected at times. The Fraenkel bacillus appears in the blood in serial crops and hence may be missed. The organism was very virulent to animals. Clinically this case belongs to a group in which the blood change may be a hematoxygenous jaundice, a hemoglobinemia, or a methemoglobinemia. In all such sepsis the tissues including the skin show a discoloration resulting from the hemolysis.—*Muenchener medizinische Wochenschrift*, July 2, 1926

Septic Serum Death—Professor A. Schlossmann of the pediatric clinic at Düsseldorf devotes a long article in the *Deutsche medizinische Wochenschrift*, July 23, 1926, to the effort to fix the responsibility for a serum death and to prevent such accidents in the future. The death occurred in Chemnitz last April and the details have long been public property so that there is no occasion to hold back any of the data. A pediatricist of Chemnitz was summoned to a case of measles and wished to immunize a three year old boy. The request to the local hospital went in by telephone and as there was serum already on hand the doctor sent his chauffeur for it. The bottle was properly sealed and the serum, although cloudy, appeared to be otherwise intact. The doctor used all antiseptic precautions in making his intramuscular injection into the buttocks. Five to six

the report to be on the road to recovery In a discussion of the paper Hieronymi announced that in farcy the infection should start from the intestines, nearly all the ordinary early lesions of the disease being metastases, including those of the nasal fossæ and skin It should be possible to diagnose farcy by a study of the histological structure of the nodules

Nature of Measles—Professor Max Flesch, who many years ago collaborated with Fehleisen when he discovered the bacterium of erysipelas, recalls that his former associate was unable to find any sign of germ life so long as he took his specimens from the reactive zone and that he discovered his *Streptococcus erysipelatis* only when he went into the sound outlying skin before reactive phenomena had developed Something of the same sort, the writer suggests, may be true of the causal organism of measles, or this may not be in the efflorescence at all and may be found only in the blood Recently a child of the author's was exposed to measles and the father proceeded to have the blood tested daily under the supervision of the Frankfurt Institute for Experimental Pathology Nothing was found until the seventh day of the period of incubation when a peculiar short bacillus was recognized which later increased in numbers On the twelfth day the measles eruption appeared Here is a possible clue to the cause of the disease In this connection he points out that those who communicate diseases like smallpox and whooping cough often seem themselves to be well or at least with only simple ordinary ailments, as when a child with a slight cough transmits undoubted whooping cough The author does not refer to carriers in the ordinary sense but to individuals in whom the nature of the infection is masked Here again is the example of virulent germs in sound tissues or apparently sound individuals In connection with his find of a microorganism in the blood of measles incubation he advocates the use of the measles convalescent serum by the sixth day after exposure or as late as the tenth, before there are many of the organisms in the blood—*Muenchener medizinische Wochenschrift*, September 3, 1926

The Dick Toxin and Scarlet Fever Streptococcus—R. Bieling, the chief of a large serum institute, refers to the positive advantages of the Dick toxin in fixing susceptibility and of the antitoxin in neutralizing it in the laboratory and clinic, but adds that there are peculiarities of these substances which argue against true specificity of action We can obtain this toxin by culture, and we obtain the skin reaction in the susceptible but not in the convalescent, though we obtain positive results up to the time of

convalescence We can mix the toxin with immune blood and thereby neutralize the former But strange to state we cannot get such results in animals (sheep, pig) Clinical convalescents do not run parallel with toxin-insensitives and there is the hint that other factors exist in securing immunity aside from antitoxin-formation Very puzzling is the fact that the Dick toxin, complete in all its behaviors, can be produced by cultivating other pathogenic streptococci, such as those which cause erysipelas, meningitis, lipoid nephrosis, and puerperal fever Moreover there are probably streptococci in scarlatinal patients which are not the same as the scarlatina streptococcus but which may be able to produce the Dick toxin Any of these non-specific streptococci will form the latter, will give the Dick skin reaction, and may be neutralized by convalescent serum Moreover there is evidence that true scarlatinal streptococci may fail to produce the typical Dick toxin So long as matters stand thus, the author thinks it may be injudicious to push Dick tests and Dick immunization on too colossal a scale among the general populace, although he admits that rather inconsistently that we should certainly make use of them in actual epidemics and after exposure, and treat all cases of true toxic scarlatina with the antitoxin—*Muenchener medizinische Wochenschrift*, September 3, 1926

Lipoid Nephrosis in Childhood—Professor A. Eckstein discusses the incidence of lipoid nephrosis in childhood in a somewhat sceptical vein, for three cases reported by him in which this diagnosis would seem to have been justifiable turned out to be something different. In true lipoid nephrosis as it occurs in adults the symptoms are well marked—noticeable disturbance in the economy of water and salts, edema subject to notable fluctuations, albuminuria, often in high values, more or less of formed elements in the sediment, and most important of all the double refractive lipoid granules or droplets which must be present to establish the diagnosis The first of Eckstein's cases ended in recovery so that the exact diagnosis was in doubt, but the author did not feel justified in calling it anything more than a temporary lipoiduria The second case was regarded during life as one of a typical lipoid nephrosis, but at the autopsy the kidneys were found to be the seat of a pneumococcal infection and the case was set down as a pneumococcal nephrosis with lipoiduria The third patient showed tabes mesenterica and amyloidosis which was especially marked in the kidneys The diagnosis was amyloid kidneys with lipuria It is evident that even with the typical clinical picture of lipoid nephrosis the diagnosis may be wrong—*Klinische Wochenschrift*, September 17, 1926

were inoculated with *Spirochaeta morsumuris*, the etiological agent of sodoku, in an attempt to improve upon the malarial method of Jauregg. Sodoku, or a rat-bite fever, is a disease fairly common in Japan, and has occasionally been recognized in the United States as well as in most other countries of the world. The infection is produced by the bite of a rat or certain other animals infected with this spirochete. The disease produces a number of symptoms suggestive of syphilis (a sore somewhat like a chancre, a regional lymphangitis and a generalization of the spirochetosis). After from five to twelve days fever occurs and skin lesions appear quite similar to those of the secondary period of syphilis. Sodoku can be transferred to man by either intradermal or intravenous inoculation of the blood of an infected animal. The intravenous method seems preferable because it avoids the formation of the primary lesion and lymphangitis. The usual dose is 1 c c intradermally or 0.1 c c intravenously. The artificially produced disease is similar in its clinical manifestations to the naturally acquired disease, producing repeated paroxysms of fever of from 102° to 105°F, and is readily controlled by asphenamine in 0.3 gram doses. Sufficient clinical and serological improvement has been noted in some of the patients treated by sodoku to suggest that its therapeutic value is equal to that of malaria. In addition, it has the practical advantage that it can be maintained in laboratory animals, and is thus always available for use, which obviates the necessity of transmitting human blood and of having on hand a case of human malaria. Furthermore, the disease is less debilitating to the patient than malaria, and it can be given to patients who are more or less immune to malaria. It may also be used together with malarial therapy.

Thirty Years Experience with the Thyroid Treatment of Obesity—Carl von Noorden refers to the simultaneous application of thyroid tablets in the treatment of obesity by himself, Yorke-Davies, and Wendelstatt and Leichtenstern about 1895. The new remedy was in such demand that the manufacturers could hardly meet it, and presently there was a reaction against the utility of the treatment and its dangers. Most of the profession dropped thyroid incontinently for this purpose, the author, however, having been an exception. To orient ourselves rapidly as to the value of this treatment, a distinction should first be made between obesity from overeating and physical torpor and the same symptom when due to an endogenous suboxidation. In the former, thyroid can serve no useful purpose, while in the latter it may be indicated, although not in-

variably. It may be possible to reduce the patient without recourse to it, especially in mild cases. Moreover in some of these patients there is evidence of hypothyroidism and in these the drug is specifically indicated. Use of thyroid substance does not mean that other resources are to be neglected. But outside of any special indications the remedy must be given perseveringly, for loss of weight even in a slight degree may not appear before a fortnight. Tolerance for the treatment may come about from too large doses and also from keeping up the treatment over too long a period. One should never go above a maximum of say the equivalent of less than a drachm of fresh sheep thyroid, which combines specifically 12 mg of iodine, and the treatment should be often interrupted to prevent the development of tolerance. It is best to think of a course of treatment of six months to a year with gradual, steady loss of weight although patients often rebel against this protracted treatment. We may isolate a third form of obesity which represents a hybrid between forms 1 and 2 and in this type the hormonal treatment must be added to ordinary reduction methods.—*Klinische Wochenschrift*, July 2, 1926.

A Case of Farcy—Blohmke reported the following case at a meeting of the Verein für wissenschaftliche Heilkunde (*Deutsche medizinische Wochenschrift*, July 2, 1926). For several weeks a man had complained of dysphagia, with fever, chills, and prostration. On examination superficial ulceration was seen on the tonsils and adjoining soft palate with a certain amount of cervical lymph-node swelling. The margins were livid and sharply marked off from the surrounding tissue. The diagnosis lay between syphilis and tuberculosis, but a biopsy showed non-specific chronic inflammation. The Wassermann test was repeatedly negative after salvarsan provocation. An abscess now formed behind the left tonsil and was incised. A suspicion of farcy being aroused, the pus was tested for the *Bacillus mallei*, but remained persistently negative. The appearance of a nodule in the muscles of one of the extremities awakened again the suspicion of farcy which was still further strengthened by the fact that some months before two horses of the patient had to be killed for glanders. A mallein allergic test was positive and serological tests were also conclusive—agglutination and complement deviation. Inoculation of the abdominal cavity of a guinea pig caused the characteristic lesions of the testes. The throat lesions improved as if from the treatment but severe manifestations appeared in the nasal fossæ with secondary suppuration of the right lacrimal sac. The patient, after an observation period of six months, appeared at the time of

the community, there, if nowhere else on earth, he will be judged simply as a man. Twelve pairs of eyes are riveted upon him from the jury box, the judge at his right is watching him, and both lawyers are observant of his every word, gesture and expression. Times without number the story of a witness is appraised and judged as much by his appearance and his conduct on the witness stand as by anything he says. Every word he utters will be taken down and investigated and every movement of his head and glance of his eye will be scrutinizingly observed. It is indeed a test.

Oftentimes a client has said to counsel before his case has come on for trial, "What shall I do? How shall I act when I am on the stand?" Some of the answers made to this query may not be without interest.

FIRST *"Tell the truth"* Remember that before you testify you will take an oath "to tell the truth, the whole truth and nothing but the truth." This is a moral maxim, but it is far more than that, it is a practical one. The Creator of Mankind seems to have imparted to every human mind some strange and infallible power to discern when a person is telling the truth and when he is not. If the truth, the whole truth and nothing but the truth is told, the likelihood that a witness of ordinary intelligence will be confused in telling it is immeasurably decreased. When an honest man is trying to narrate honestly what he actually said, saw, heard or did, he will not be engaged in the parallel attempt of trying to make one word reconcile itself with another or become confused in an effort to make his story plausible. Instead he will be devoting his entire mind to recalling what the facts were and to the expression of them in plain and simple words. There is a look about a man who tells the truth which is unmistakable. This is equally true of a witness who is lying. These things a jury of twelve men, by some strange second sight, seem able to divine. Tell the truth and you will not become confused in your testimony! This does not mean that it is unimportant before the trial begins to spend every reasonable effort in recalling the facts and in refreshing the recollection as to names, dates and circumstances from such records as the witness may possess. This must all be done before the trial. When it is done, if the witness tells the truth he not fear but that he will be believed. The witness who has fabricated his story, however deftly—in the hands of a shrewd cross-examiner will be detected and exposed and, when detected and exposed, the judge and the jury will lose every vestige of confidence and respect for him, and he

should not be disappointed if that occurs which, under those circumstances, should occur—an adverse judgment.

SECOND *"There is no magic about testifying"*—There are no abstruse or hidden rules which govern it. A courtroom is a practical place where practical men are engaged in the serious work of endeavoring to administer justice. Do not try to assume a pose or studied mien, do not think about anything except giving, in a straightforward way, true answers to the questions which the judge allows.

THIRD *"Be courteous"*—This applies to the judge, the jurors and the adverse counsel. No one ever loses by courtesy. Do not try to be facetious or smart. No matter how absurd a question may appear, consider it seriously and give a truthful and intelligent answer. The folly of a question will be more exposed by the calm intelligence of the answer than by any smile or sneer or other manifestation of the scorn of the witness for the ignorance or shortcomings of the questioner.

FOURTH *"Do not be afraid"*—The honest man who is coming into court to tell the truth has nothing whatever to fear. As a rule he will be dealt with courteously, and if he is not dealt with courteously by the adverse counsel, the judge will come to his protection and he will enlist the sympathy of the jury. Look the examiner in the eye and look into the eyes of as many of the jurors as you can. If the judge asks a question, turn and look him squarely in the eye and give your answer. Remember that it is not only your story, but you, that is being judged. No one loves a coward. You have nothing to fear. Sit there with head erect and be yourself.

FIFTH *"Do not seek to impress the judge the jury or the adverse counsel with the possession of superior wisdom"*—Nothing is more impressive than modesty. If you are an outstanding character or are the possessor of extraordinary attainments, this fact will soon enough reveal itself. Minimize rather than exaggerate your qualifications and capacity.

SIXTH *"Be attentive to the questions"*—Listen to the questions carefully. Make sure that you understand them. Do not answer them until you do understand them. You cannot understand them unless you listen to them. After you understand them, answer them in the most straightforward and truthful manner possible.

SEVENTH *"Do not volunteer"*—The trial of a case does not consist of the speeches of the witnesses, but of their answers to specific questions. In the hands of competent counsel the facts will be elicited by questions. You are not called upon to make a speech, your only duty is to give answers to the questions which are put to you.



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

THE ART OF GIVING TESTIMONY

Many interesting and important principles governing the administration of justice have found but slight reflection in the books. Until Francis I. Wellman wrote his brilliant work on the "Art of Cross-Examination," the rules governing this most invaluable weapon for the ascertainment of truth had not been so illuminatingly set down. Other subjects still await a full and clarifying presentation.

From the trial of hundreds of cases the writer has reached some conclusions in regard to that which might be called "The Art of Giving Testimony." No matter how well a case may be prepared for trial or how skillfully the trial may be conducted by the lawyer, good results sometimes are not achieved because of the failure of a witness to apprehend the true nature of what he is called upon to do.

To the writer there is no more interesting study than the conduct of a lawsuit. There is nothing which brings to bear so many and so varying factors, there is nothing which provides a more useful clinic for a searching study of human psychology and personality. A trial is more than a trial, it is a human drama. A story is unfolded with all of the high lights—fear, pathos, sympathy, anger, indignation and other human traits and emotions—the true materials for the dramatist.

The highest tribute to individualism and to the conscience and intelligence of the ordinary man was paid when the founders of our Anglo-Saxon jurisprudence centuries ago in England came to the conclusion that twelve citizens selected from the varying walks of life were qualified to be the judges of the facts in all court contests between man and man and between the State and its citizens.

The writer for more than sixteen years has been constantly appearing before courts and juries. The longer his experience the more profound his admiration for the jury system. Criticisms of this system of administering justice are not infrequent, but it is the writer's belief that they are usually voiced by those who have but slight experience with juries. When these criticisms are expressed the words of Jeremiah Black, who was Attorney General of the United States in the late fifties, are called to mind. Before the Supreme Court of the United States in one of the most celebrated cases ever argued there, he declared: "The framers of our Constitution could act only in the ex-

perience of that country whose history they knew most about, and there they saw the ferocity of Jeffreys and Scroggs, the timidity of Guilford, and the venality of such men as Saunders and Wright. It seems necessary, therefore, not only to make the judiciary as perfect as possible, but to give the citizens yet another shield against his government. To that end they could think of no better provision than a public trial before an impartial jury.

"We do not assert that the jury trial is an infallible mode of ascertaining the truth. Like everything human, it has its imperfections. We only say that it is the best protection for innocence and the surest mode of punishing guilt that has yet been discovered. It has borne the test of a longer experience, and borne it better than any other legal institution that ever existed among men. England owes more of her freedom, her grandeur, and her prosperity to that, than to all other causes put together. It has had the approbation not only of those who lived under it, but of great thinkers who looked at it calmly from a distance, and judged it impartially. Montesquieu and De Tocqueville speak of it with an admiration as rapturous as Coke and Blackstone.

"Those colonists of this country who came from the British Islands brought this institution with them, and they regarded it as the most precious part of their inheritance. The immigrants from other places where trials by jury did not exist became equally attached to it as soon as they understood what it was. There was no subject upon which all the inhabitants of the country were so perfectly unanimous as they were in their determination to maintain this great right unimpaired.

"If the men who fought out our Revolutionary contest, when they came to frame a government for themselves and for their posterity, had failed to insert a provision making the trial by jury perpetual and universal, they would have proved themselves recreant to the principles of that liberty of which they professed to be the special champions. But they were guilty of no such thing."

When a citizen is called upon to take the witness stand, he must go there alone. When he sits down to answer questions under oath, he must meet the ordeal by himself. Whatever may be his rank or station in life, or the financial or professional position which he holds in



MEETINGS



THE EIGHTH DISTRICT BRANCH

The Annual Meeting of the Eighth District Branch of the Medical Society of the State of New York was held on October 13, in the Buffalo City Hospital, and was opened at 10 30 A M by the President, Dr George W Cottis, of Jamestown

The morning was devoted to topics relating to civic medicine, especially those which are conducted by County Medical Societies A luncheon was served at noon through the courtesy of the Medical Society of the County of Erie An afternoon session was given over to scientific medicine. A subscription dinner was held in the evening in the Hotel Statler, and an evening session was held in conjunction with the Buffalo Academy of Medicine, when Dr John Phillips of Cleveland, Ohio, spoke on "Subacute Bacterial Endocarditis"

President Cottis opened the meeting with his presidential address, in which he outlined a plan for promoting the usefulness of the District Branches He spoke as follows

"The District Branch Medical Societies are supposed to form a connecting link between the component County Societies and State Society It is probable that at one time this was an important and necessary function During the past few years there has arisen a doubt as to whether this Branch Society in its present form is meeting its full usefulness For four years preceding my election, the Eighth District Branch Medical Society was fortunate enough to have for its President Dr Harry Trick, whose enthusiasm and hard work have been appreciated by every member of the Society In spite of the advantage of such leadership, the meetings have never been well attended, and the results have been small in proportion to the time and labor freely expended by our officers

"Last Spring the Council of the State Society authorized the holding of meetings of the Executive Committees of the Branch Societies at dinner conferences, the cost of the dinners being borne by the State Society Our meeting was held in Buffalo and we had a surprisingly good attendance Furthermore, it was discovered that your officers had so many matters to discuss that one evening was not found to be sufficient

"I would suggest for your consideration a proposal that the District Branch Society should function largely through its Executive Committee The Executive Committee is composed of the officers of the District Branch Society, and the Presidents and the Secretaries of the component So-

cieties These men might meet twice a year and function very much as the House of Delegates does for the State Society The traveling expenses of the County officers might be paid by the County Societies, and those of the District officers by the State Society

"At these meetings, the County Societies could present their problems and proposals for discussion, and these discussions would surely be more fruitful than those which we now have at our general meetings More and more each year we must give consideration to the questions of public health, social medicine, compulsory health insurance, and the other movements which result from the civic tendencies of our time. These are matters for intensive study and discussion, and can be handled more effectively by a small group of officers than by a haphazard collection of doctors at a general meeting in which their interest is divided between a series of addresses in the morning and a scientific program in the afternoon"

Dr Joseph S Lawrence, Executive Officer of the Medical Society of the State of New York, addressed the meeting on the need of more meetings or conferences of the District Branches in order to establish a greater liaison between the County Societies and the central State Society While it is impossible to have an intimate discussion of local problems when the representatives of sixty counties are assembled, as in the State Society meeting, it is possible in an assembly from seven or eight counties, as in the District Branch meetings

Dr Robert E DeCeU, President of the Erie County Medical Society, discussed the points raised by Drs Cottis and Lawrence. He spoke of the need of keeping the members informed regarding the activities of the County Society, and Erie County was meeting the problem by publishing a Monthly Bulletin But the Bulletin costs considerable money, and the funds of the County Society are low Dr DeCeU suggested that the District Branch might publish a bulletin for the benefit of all the County Societies of the District, and that the cost might be met by advertisements

Dr DeCeU brought up the point that the members of the Erie County Medical Society pay to the State Society more money than to their local Society, and he asked for a statement of what the State Society is doing for the members in Erie County

Dr Dougherty, Secretary of the Medical Society of the State of New York, in answer to Dr

EIGHTH *"Do not attempt to be an advocate"*—Leave the advocacy to your counsel. Your duty is to give the court the facts, not to argue about them or to draw conclusions from them. This presumably will be adequately performed by the counsel to whose hands your case has been entrusted.

NINTH *"Do not lose your temper"*—Sometimes questions which seem to have a most insulting innuendo are propounded. Ignore the insult, intentional or unintentional, in the question, and conserve your mental powers for answering it. A calm and dispassionate answer to such a question will win you friends among the jury which no angry or intemperate retort could ever bring.

TENTH *"Be natural"*—Do not under-dress or over-dress for the occasion. Be yourself as you are in your own life. You are neither dressing for nor acting a part. You are there as a man to let the judge and jury see, observe and judge you as you are. Affect no mannerisms of speech or dress.

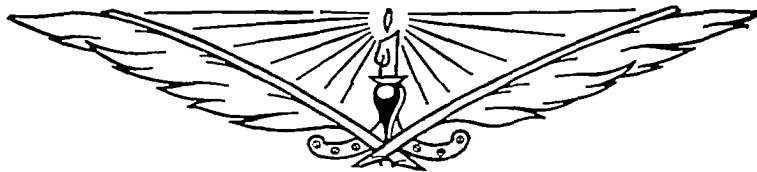
ELEVENTH *"Keep your voice up"*—Your testimony will be of no consequence unless it is heard. In our courtrooms, especially in the larger cities, there is often much noise and confusion. Many times the passing trucks and heavy vehicles in the street will cause a rumble that makes it difficult to hear the voice within the courtroom. It is always a strain and an annoyance, both to the judge and to the jury, if they are not able clearly to hear every word uttered. It is also a nervous tax upon your counsel if his mind must be frequently deflected by exhortations to the witness to speak so that he can be heard. Moreover, there is a psychological value in talking clearly. A man who whispers or mumbles or hesitates sometimes conveys the impression that he is doing so because he is afraid or because in his heart he knows that he is not testifying truthfully. Do not be afraid to speak the truth, the whole truth and nothing but the truth in a voice that all the jurors, the lawyers and the judge can hear.

TWELFTH *"Be frank"*—Do not hesitate to admit a fact because you think it may hurt you. Usually in every case there are some facts which your counsel might wish were otherwise. The best way to meet them is to be frank about them. Candor and frankness win respect and confidence.

THIRTEENTH *"Remember that there is no mystery about the administration of justice"*—A cause and a witness are judged exactly in the same way in which men and circumstances are appraised in ordinary life. The same rules which guide the credit men, the storekeepers, the bankers and the farmers who may sit upon your jury, in their ordinary vocations, will be employed. They will size you up and judge you in the same way in which your banker does when you go to him seeking for a loan. If you are open, frank, honest, to your banker, he will be convinced that you possess that prime prerequisite of credit—character. In the same way in which your banker judges you, your jurors will judge you also.

FOURTEENTH *"Do not be afraid, because your case may involve technical or scientific facts, that they cannot be understood"*—The most complicated proposition in science is susceptible of being expressed in short and simple English words which men of ordinary intelligence can understand. Even a complicated science may be so illuminated and presented that the ordinary mind can grasp it, at least in its essence. Therefore, do not talk down to the jury. If there is a scientific fact concerning which you are questioned and you are accustomed to the use of long Latin words, without any display of superior learning translate and explain these words into simple terms so that they can be understood. Sometimes polysyllables are nothing more than a disguise for an imperfect knowledge.

Without in the least attempting to be didactic, certainly with no assumption of a perfect mastery of the complicated art of presenting a case to a court or jury, the writer from his own experience feels that the foregoing rules, simple and obvious as they may seem, if fully comprehended and observed, would be the means of winning many a case which otherwise might seem desperate or hopeless.



the Erie County Medical Society The collection of pathological specimens that was shown last year was again on exhibition For a description of the specimens, see this Journal, November 1, 1925, page 1014

Another feature of the exhibit was a series of charts designed to educate the public in the elementary facts of disease. One chart, for example, showed an outline of the nervous system on which was indicated the site of the lesions of poliomyelitis and the place of entrance of the germs The exhibit also contained food specimens showing the composition of various articles of diet and their calories

A third feature of the exhibit was a series of fourteen charts setting forth in a popular way the fundamental basis of the practice of medicine Some of the charts, for example, compared the educational requirements of a doctor with those of a cultist These charts were prepared by Dr E W Koch, Professor of Pharmacology in

the Medical School of the University of Buffalo, and were first shown at the dinner given by the Erie County Medical Society on May 26, 1926, to the members who had been fifty years in practice These charts will be published in an early issue of this Journal

Dr Goodale also showed the members of the District Branch the building which had recently been erected to house a school for crippled children Over one hundred school children are brought to the building daily in busses at city expense. They attend classes in the ordinary school subjects, and are also given manual training in work suitable to their physical defects Doctors examine the children daily and give them the treatments which they need The building has abundant room for carrying on every needed activity, and is the latest development in the rehabilitation of cripples who otherwise would be condemned to a lonesome life isolated from companions

THE FIFTH DISTRICT BRANCH

The Twentieth Annual Meeting of the Fifth District Branch of the Medical Society of the State of New York was held on October 14, 1926, in the Y M C A. Building, at Watertown, with the President, Dr Charles D Post of Syracuse, in the chair

The first number on the program was "Some Medical Problems in School Health Inspection," and was given by Dr Mace of the State Department of Education The doctor enumerated four defects which were noted by the inspectors

- 1 The substitution of a nurse for the doctor in making examinations

- 2 Commercialism, such as prescribing glasses when none were needed

- 3 A deficiency of educational publicity regarding the examinations and the correction of the defects

- 4 "Steering" patients to certain doctors—a criticism of lay agencies

Dr F W Sears, District State Health Officer, in discussing the paper, told of a successful experiment in getting better examinations in rural schools, consisting of the following steps

- 1 A letter to the school trustees explaining the plan and offering cooperation

- 2 A public health nurse visits the school in order to weigh and measure the children, and to test their sight and hearing She would use apparatus supplied by some health center or nursing association.

- 3 On an appointed day the nurse and the doctor would go to the school house, and the doctor would examine the children behind a screen, while the nurse made the records No difficulty was found in stripping the children to the waist for the examination

- 4 The nurse made subsequent visits in order to instruct the teachers and parents in the follow-up work

The second number on the program was "Diphtheria Eradication" by Dr F G Metzger, of Carthage He described the work in Carthage and the difficulties encountered The result of giving toxin-antitoxin to the school children was that scarcely a case of diphtheria now develops in the village

One difficulty mentioned by Dr Metzger was that at first some adults had sore arms and a fever following the toxin-antitoxin injections, but none were seen during the last two years since the use of the newer mixture containing only one-quarter as much toxin as formerly

Dr John M Swan of Rochester, Chairman of the New York State Committee for the Control of Cancer, gave a clear description of the aims of the Society He emphasized the ten points of the statement regarding cancer which was issued by the International Cancer Symposium recently held in Lake Mohawk, and which are described on page 878 of the October 15 issue of this Journal Dr Swan also described the cancer clinic which was begun in Rochester in 1924, and said that only about 18 per cent of the cases coming to the clinic had cancer This fact shows that the education of the people regarding the early signs of cancer was having its effect.

Dr W Richard Ohler, of Boston, gave a paper on "The Present Status of Thyroid Therapy" He began by describing the use of basal metabolism tests in the diagnosis of thyroid defects He then enumerated the signs of increased activity of the thyroid as follows A

DeCeU's question, outlined some of the major activities of the State Medical Society. He divided the problems of the State Society into three classes: 1, scientific, 2, preventive medicine, and 3, policies of administration.

The scientific activities of the State Medical Society are the oldest and best known of all its forms of work. The most recent form of scientific activity is that of graduate education, whose benefits are open to any County Society which will use them.

Active participation in the concrete applications of preventive medicine is also one of the newer forms of work of the State Society. This activity, like that of graduate education, is not conducted directly by the State Society, but is done through the County Societies interested in the work.

Regarding policies of administration, there are some things which the State Society itself handles, and others in which the State Society acts as advisory to the County Societies. Examples of activities which are peculiar to the State Society are legislative matters and malpractice defense.

The advisory and inspirational work of the State Society depends largely on the intimate contacts of the committees and officials of the State Society with those of the County Societies and the local members. Concrete forms of these contacts are afforded by the Journal of the State Society and by the field work of the Executive Officer.

How much benefit a County Medical Society or its members get out of the State Society will depend largely on the desire and receptivity of the local organizations and members. The State Society discourages the passive acceptance of favors, but it helps any County Society or member in the active development of all forms of the practice of medicine.

Dr. Dougherty developed the value of intimate sociability as a promoter of harmonious activity for the good of the medical profession. The trinity of activities of the medical societies of the State, the District Branches, and the Counties consists of, 1, the scientific, 2, the civic, and 3, the social. The social activities are not ends in themselves, but are essential in securing harmonious action along scientific and civic lines.

Dr. George M. Fisher, President of the Medical Society of the State of New York, gave an address on the broad lines of work done by the State Medical Society in the past, especially its leadership in the promotion of laws relating to the practice of medicine, the adoption of a pharmacopoeia, and the formation of the American Medical Association. He also described the broad lines of activity that are now carried on by the State Society, and its still broader plans for the future. The present is a period of research and experimenting along such lines as graduate education, periodic health examination, diphtheria prevention, and the control of quackery.

The State Society had builded on sure foundations, and future progress will depend largely on the active response of the medical profession to the ideals set forth by progressive leaders in the State Society, the District Branches, and the County Societies—all of whom are actively developing plans by which the physicians of New York State may meet their full obligations as advisors of the people in all matters relating to sickness and health.

The anti-diphtheria campaign in Erie County was described by Dr. Joseph O'Gorman of Buffalo. He said that the work was being promoted by five principal means:

- 1 The County Bulletin describing the plans was sent to every doctor in the County.

- 2 An ornamental display card for the physicians' office was sent to every doctor. This card called the attention of patients to the benefits of toxin-antitoxin, and stated that the doctor was prepared to give the immunizations.

- 3, A monthly check-up of the number of packages of toxin-antitoxin given out by the Department of Health, and of the number of reports of doses given in clinics and by private doctors. The pediatricians were especially active in giving the immunizations.

- 4 Publicity in the newspapers.

- 5 Publicity in the moving picture theatres.

In the discussion, Dr. Lawrence said that Erie County was responding to a public demand aroused by the State Department of Health and lay organizations.

Dr. Fisher called attention to the five-year program with the slogan "No diphtheria by 1930." He said that if the doctors did not give immunizations, the State Department of Health would do so. He appealed to the doctors to take advantage of the opportunity that was offered to them.

Dr. Dougherty told of the attitude of doctors toward diphtheria antitoxin when it was introduced in 1895. He said that the doctors of New York City usually sent word to the Board of Health when they had cases of diphtheria, and asked that a doctor be sent to give the antitoxin regardless of the social status of the family. Today the doctors were better educated, and were more willing to discharge their civic duties.

The following scientific program was carried out during the afternoon session:

"The Relation of the General Practitioner to the Workmen's Compensation Law," H. P. Hourigan, M.D., Buffalo.

"The Advisability of Pregnancy Complicated with Diabetes," Byron D. Bowen, Buffalo.

"Benign Diseases of the Cervix and their Treatment," James E. King, M.D., Buffalo.

"Surgery of the Spleen," Thew Wright, M.D., Buffalo.

Dr. Goodale, Superintendent of the City Hospital, showed those attending the meeting an exhibit that had been prepared by the Hospital and

- street cleaning department, Philadelphia
1780 Board of Health, Petersburg, Virginia
1789 Earliest American Life Table, Massachusetts and New Hampshire
1800 First vaccination
1813 First visiting nurse
1856 First law prohibiting adulteration of milk
1858 First day nursery
1871 First water filter, Poughkeepsie
1872 American Public Health Association founded
1873 Reports of communicable diseases required, New York City
1874 First leaflet on infant care
1875 A. P. H. A. begins appraising city health work.
1877 Study of bacteria in botany course
1878 U. S. public health service starts work.
1880 Death registration area established
1885 First tuberculosis sanatorium established by Trudeau
1887 Experiment station for sewage and water, Lawrence, Mass
1890 Pasteurization of milk introduced
1891 Federal milk inspection
1892 First commission for milk certification
1894 Antitoxin first distributed by a city
Medical inspection of schools
First tuberculosis clinics, New York City
First State health laboratory, Rhode Island
A. P. H. A. begins water analysis standardization
1895 Nurses first employed by industrial organization
Septic tanks used for sewage treatment
1898 First State tuberculosis sanatorium, Massachusetts
1900 Proof that mosquitoes carry yellow fever
Health officers assumed milk examination, Montclair, N. J.
1902 Municipal school nurses appointed
1905 Terminal disinfection abandoned at Providence by Chapin.
1906 Federal food and drug act
1907 First Christmas seals, Wilmington, Del
1908 First open air school, Providence
Chlorine for purification of drinking water, Chicago
Prenatal supervision undertaken
1909 Public drinking cup abolished, Kansas
Antityphoid inoculation, U. S. Army
1910 First infant mortality report
First course in public health nursing
1912 Rural nursing service begun
1914 Schick test first used, New York City
1915 Birth registration area established
1918 Toxin-antitoxin first used in New York City
Health education in schools begun

- 1923 Antitoxin for scarlet fever
National organizations founded
Tuberculosis, 1914
Mental Hygiene, 1909
Safety Council, 1911
Public Health Nursing, 1912
U. S. Health Nursing, 1912
Cancer, 1913
Social Hygiene, 1914
Blindness, 1915
Health Council, 1920
Child Health, 1923
Heart, 1924

To describe the forty and more meetings of the Association here would be impossible owing to the limitations of time and space. But some of the leaders kindly consented to give statements of their impressions.

Dr. C. E. A. Wilslow, President of the Association, said:

"The great future problem in public health is the control of the degenerative diseases, such as cancer and the chronic diseases of the heart and kidneys. Their control depends on preventive work. Can this work be left entirely to the individual doctor? Medical organizations are needed to stimulate and help the individual doctor to seek to treat the individual cases, and to educate the cases to seek early medical treatment.

"The question arises, can prevention be made effective under all conditions as long as the remedy depends on individual pay? The question is settled in Europe by the adoption of a system of State medicine. In this country the remedy is in the hands of the doctors themselves. They have the power to see that practical measures are developed and adopted. The group including the poor and the unwilling must be reached, and if the doctors do not reach them by means of their organizations, either the State or lay organizations will reach them.

"Physicians are beginning to realize their vital interest in the problem, and are earnestly attempting its solution through their organizations—national, state and county."

Dr. Henry F. Vaughan, Past President of the Association, and Health Officer of the City of Detroit, said:

"The public health need of the day is a working liaison between all health practitioners—the family physicians, laboratory workers, health officers, lay workers, and all others engaged in public health work. A concrete suggestion is that the representatives of the American Public Health Association should meet with similar representatives of the American Medical Association, and adopt working standards of cooperation.

"There is need of a closer harmony between

sense of warmth of the skin, flushing and perspiration, heart rapid, nervousness, tremors, increased appetite, loss of weight, exophthalmic symptoms

The signs of decreased thyroid activity were retardation, physical and mental, low blood pressure, cold skin, abnormal sensitiveness to cold, slow pulse, slow speech, decreased appetite, increased weight, edema, pallor, decreased intestinal function

The intensity of the symptoms were in direct proportion to the departure from the normal rate of basal metabolism

Dr Ohler then described therapeutic measures in a clear simple way

Dr George M Fisher, President of the Medical Society of the State of New York, described the activities of the State Medical Society, and what it is doing for the benefit of the medical profession and the public. For the medical profession or the doctors in general, the State Society is doing work along legislative, economic, and educational lines. For the County Societies the State Society is supplying information and inspiration, and for the individual members it is

giving malpractice defense information through the JOURNAL, and the inspiration and satisfaction that comes from close association with other doctors

Dr D S Dougherty, Secretary of the State Society, followed up the lines of thought of Dr Fisher, and emphasized the point that the members would receive benefits in just the proportion that they took an interest in the Society and promoted its work. He suggested the Motto "He who helps is himself helped"

The doctors and their wives were guests of the Jefferson County Medical Society at a noon luncheon

The program of the afternoon session was as follows

"The Importance of the Early Recognition of Urologic Pathology," by Henry G Bugbee, M D, of New York City

Discussion led by Dr Thomas F Lowne, of Syracuse

"Acute Suppurative Pleurisy," by James M Hitzrot, M D, of New York

Discussion led by Dr Hyzer M Jones, of Utica

THE AMERICAN PUBLIC HEALTH ASSOCIATION

The American Public Health Association held a four-day session from October 11 to 14, 1926, in the Hotel Statler, Buffalo. It is composed of all the agencies which are engaged in public health work, especially the official workers in Departments of Health. Lay organizations are also represented, and to a less extent, practising physicians. It includes sanitary engineers and laboratory technicians, and teachers of public health. Its president is Professor C E A Winslow, Dr Ph, who is head of the Department of Health of the Medical School of Yale University.

The registered attendance was about 1,400, which was about 40 per cent more than last year, but a large proportion of the increase was due to the coincident conference of New York State Health Officers, many of whom belong to the American Public Health Association.

The scientific work of the Association is distributed among the nine sections of public health administration, laboratory, vital statistics, public health engineering, industrial hygiene, food and drugs, child hygiene, health education and publicity, and public health nursing, each of which held its own sessions. General sessions were also held. Altogether about 45 separate meetings were listed on the official program, but numberless unlisted committee meetings and conferences were continually going on.

One great accomplishment of the American Public Health Association is the establishment

of standards of procedure. The leading workers in water supplies, for example, have agreed on a standard method for water analysis, and another committee has established standards for milk examinations. A committee is now working on a revision of the quarantine rules for the control of communicable diseases. When the leading experts in any line of public health work agree on a practical method, and the section discusses and adopts it, that method represents a standard which is as nearly official as any such scientific standard can be in the rapidly changing state of science.

Exhibits of material used in public health work were shown on a scale equalling the medical exhibits at the annual meeting of the Medical Society of the State of New York. A striking exhibit prepared by A P H A for sale was a large wall chart entitled "Milestones of Public Health in the United States." It was illustrated with outline drawings which a girl artist, standing on a platform, would color for the buyer at a special price. The milestones on the chart were as follows:

- 1639 Colonial birth and death registration law
- 1647 Act forbidding pollution of Boston Harbor
- 1648 Maritime quarantine in Massachusetts Bay
- 1701 Isolation of smallpox required
- 1750 Benjamin Franklin organized the first

the great amount of money invested in all phases of the work, and the varied professions that are engaged in public health activities. To attend such a conference is an opportunity as well as a pleasure and satisfaction.

The registration of health officers was 360, which was 70 per cent of their registration last year. The reduced attendance may be accounted for partly by the location of the meeting place at the extreme western end of the State, and also by the necessity of missing the intimate sociability of the gatherings in one Saratoga Hotel.

The nurses registered numbered 235, which was 90 per cent of their registration last year.

The example set last year of inviting the President of the Medical Society of the State of New York to take a prominent part in the program was again followed this year. Dr Fisher happily set forth the growing interest which physicians generally, as well as health officers, are taking in public health work, and the increasing cooperation between the State Department of Health and the organizations of physicians, especially the Medical Society of the State of New York.

The State Health Officers' Association under its president, Dr Stanton P. Hull, held its annual meeting and banquet in the Hotel Lafayette, on the evening of October 12, in connection with the association of Public Health nurses under the presidency of Miss Bertha Gibbons. Dr Hull and his associate officers were unanimously re-elected. A feature of the business meeting was the voting of a substantial sum of money to the wives of the Secretary and the Treasurer for

their efficient assistance of their husbands in their clerical work.

The program of the meetings of the Health Officers' Conference was as follows:

Introductory address, Matthias Nicoll, Jr., M.D., Commissioner of Health. This address is printed on page 883 of this JOURNAL.

Address, George M. Fisher, M.D., President of the Medical Society of the State of New York.

"What New York State is doing for Cripples," by Lewis A. Wilson, Director Division of Vocational and Extension Education, State Department of Education.

The Progress of the Toxin-Antitoxin campaign in New York State, by Edward S. Godfrey, Jr., M.D., Director Division of Communicable Diseases, State Department of Health.

Progress of Infant and Maternity Hygiene Work, in New York State, by Elizabeth M. Gardiner, M.D., Director Division of Maternity, Infancy and Child Hygiene, State Department of Health.

Control of Nuisances by Health Officers and Local Boards of Health, by Charles A. Holmquist, Director Division of Sanitation, State Department of Health.

Conferences of groups and special workers were frequently held, and possibly of still more importance were the informal conversations of pairs and groups that were constantly going on in the corridors and meeting rooms.

Altogether the conference was well suited to inspiring the health officers to be better physicians as well as health officials.

THE ASSOCIATED PHYSICIANS OF LONG ISLAND

The last of the three meetings held annually by the Associated Physicians of Long Island was held in the Engineers' Club, Roslyn, Long Island, on the afternoon and evening of Tuesday, October fifth. The afternoon was taken up with a golf tournament at which fifty-four members competed for seven prizes.

A business session was held at 5:30 o'clock at which six new members were elected. A report of the *Long Island Medical Journal*, the organ of the Society, was given by Dr W. H. Ross, Chairman of the Publication Committee, who showed the progress of the *Journal* in reflecting the medical activities of the four county medical societies on the Island.

A supper was served at 6 o'clock at which eighty-eight physicians were present.

A scientific session was held at which Dr

Luther F. Warren, Professor of Medicine at the Long Island College Hospital Medical School, gave a talk on "Heart Disease in Pregnancy from a Medical Viewpoint." He based his remarks on studies made in the obstetrical and medical wards of the hospital and showed that pregnancy was not necessarily such a fatal condition as it has been supposed.

Dr C. Floyd Haviland, former chairman of the Hospital Commission, and now Superintendent of the Manhattan State Hospital on Ward's Island, gave a paper on "Psychiatry and the General Practitioner." He made a plea that men in general practice should study the elements of diagnosing abnormal mental states in their incipency. He offered to cooperate in developing a method of presenting the principles of psychiatry to physicians in a simple form.

health officers and doctors. This problem is happily not acute in New York State where health officers are necessarily physicians, but yet the general practitioner could well take a much greater interest in the work of the health officer.

"There is a grave danger that laymen will get ahead of doctors in public health work. The natural stimulation of the doctors would come from the A M A, through the state societies, down to the county medical societies. Diphtheria, for example, could be eradicated by a unified, intensive campaign under the joint auspices of the A M A and the A P H A, and subordinate groups."

Dr Louis I Harris, Chairman of the Section on Public Health Administration and Commissioner of Health of New York City, said:

"The most important problem that came before the section was that of isolations in the several communicable diseases, especially those classed as minor. A committee had investigated the problem from all angles, and had submitted a report whose reading took two hours. Some radical changes were suggested, largely along the lines of a less severe form of isolation. The section was almost evenly divided over the question of immediately adopting the report. Some felt that since the causes of many of the diseases were still unknown, the old, tried methods should be continued until more definite knowledge was available. Some felt that to adopt sweeping changes all at once would be construed by the public as a confession of past inefficiency that would be used by cultists and quacks to discredit the medical profession. It would seem best to adopt any necessary changes gradually so as to preserve the widespread uni-

formity of procedure that is now observed."

The relation of physicians to other public health workers, or rather an interpretation of that relation, was revealed in an unexpected way at a luncheon conference of editors of health magazines at which the editor of a medical journal which was the organ of a state medical society was introduced as somewhat of an interloper in the group, since he was a physician and edited a journal for physicians. Dr Haven Emerson, head of the Department of Public Health of the College of Physicians and Surgeons, New York City, warmly defended the medical editor and said:

"When a public health movement or campaign is started, there is a standard order of procedure to be followed:

"1 Develop a definite statement of the object to be attained

"2 Devise a definite plan of procedure

"3 Go to the proper organization of physicians and discuss the plan with the members of the medical society. Modify the plan in accordance with the wishes and experience of the physicians, and get their support and participation before taking any further steps. The assistance of the practising physicians is essential in any modern public health movement.

"4 When the approval of the physicians has been secured go before selected groups and state the plans. Such groups would include school teachers, ministers, churches, chambers of commerce, and boards of health.

"5 After all these preliminary steps have been taken, then and then only, start a general campaign of publicity and education through the newspapers."

THE ANNUAL CONFERENCE OF HEALTH OFFICERS

The twenty-fifth annual conference of health officers of New York State was held in the Hotel Statler, Buffalo, on October 12, 13 and 14, jointly with the annual conference of public health nurses.

The conference was made an integral part of the annual meeting of the American Public Health Association, and its program of Tuesday October 12, was given over to the State conference. The annual meeting of the Eighth District Branch of the Medical Society of the State of New York was also listed on the general program of the American Public Health Association, but the meeting of the District Branch had no physical connection with that of the public health workers.

The plan of holding the conference of special public health workers jointly with the meeting of the American Public Health Association had its disadvantages as well as advantages. It was

a disadvantage to the health officers and nurses that the individuals were separated from one another in the hotels and meetings, and they missed the comradeship that came from gathering together in one hotel, eating in the same dining room, and congregating on the big porches and in the spacious corridors of the Grand Union Hotel in Saratoga where the conference has usually been held. (See the description of the 1925 conference on page 872 of the August, 1925, issue of this JOURNAL.)

On the other hand, the meeting of the American Public Health Association afforded the opportunity for the health officers and nurses to meet the prominent public health workers from all over the United States and Canada on a social basis, and to hear them discuss the same problems that are agitated in New York State. One is deeply impressed with the immensity and the importance of public health problems, and

WASHINGTON COUNTY SEMI-ANNUAL MEETING

The semi-annual meeting of the Washington County Medical Society was held on May 11, 1926, in Fort Edward with President Prescott in the chair and twenty-two members and four visitors present

Dr Banker, the Secretary, reported on a meeting of the Comitia Minora held on April 6, when the matter of financing a course of graduate lectures was discussed. On motion each member of the society was assessed one dollar in order to defray the expenses of a lecture course

The following resolution was adopted and ordered sent to the Board of Supervisors

WHEREAS, the Washington County Public Health Clinic as given excellent service, to the doctors of the county on the early diagnosis of tuberculosis, and

WHEREAS, the physicians in charge have materially assisted in the work, therefore be it

Resolved, that the Board of Supervisors be requested to continue the clinic without interruption in the interest of the health of the people of the county

On motion the president was asked to name a committee to revise the fee list

After a social luncheon at noon, the society met in the Baptist Church for a scientific session

The vice-president gave an address on "The Trend of Modern Medicine" calling attention to the civic work of physicians and advising periodic examinations

Dr Vickers read a paper on "Eponyms of Anatomy"

Dr Albert Pfeiffer, Director of the Division of Venereal Diseases of the State Department of Health showed a series of lantern slides on "The Early Diagnosis and Treatment of Syphilis" with special reference to heart disease

Dr L W Gorham gave a lecture on "Liver Functions" illustrated with lantern slides

A vote of thanks was given to the Rev Mr Myers for the use of the church auditorium and lantern

The society voted to oppose Federal Bill Number 4085 amending the narcotic law

During the past three years the average attendance at the meetings has been seventeen. Only four members have not attended any meeting and one of these was present twice at the Glens Falls lecture course.

WASHINGTON COUNTY ANNUAL MEETING

The annual meeting of the Washington County Medical Society was held at Hudson Falls, October 5, 1926, at 4 30 o'clock, with 22 members present. The following officers were elected for the ensuing year

President, C A Prescott, M D, Vice-President, S T Fortune, M D, Secretary, S J Banker, M D, Treasurer, R C Paris, M D, Censors, P C Tillotson, M D, L M White, M D, I M Schneible, M D, Committee on Legislation, W A Leonard, M D, G M Stillman, M D, H S Blackfan, M D

The treasurer reported a balance of \$16 98 on hand

On motion, it was voted to assess the members one dollar for the year 1927, in addition to the dues, with the intention that the by-laws be changed to make the annual dues two dollars

Dr Munson presented the subject of the expenditure of the funds received from the sale of red cross seals. After much discussion, it was voted that we recommend that the committee employ a county nurse, to be paid out of this fund.

The president, Dr M A Rogers, gave the

annual presidential address, "The Office Treatment of Endocarditis"

The members dined together at the Carleton. After the dinner, Dr Joseph S Lawrence spoke at length as to what the duties of a county society should be and emphasized the importance of these duties to the profession and to the community they served

The members then adjourned to the Court House for an evening session. Dr Frank W Sulzman of Troy presented his paper on the "Relation of the Tonsils to Systemic Infection". He emphasized the importance of distinguishing between the infected tonsil that should be removed and the non-infected that should not be removed

Dr James F Rooney, of Albany, presented the subject of "Carcinoma of the Stomach," recommending the use of radium and X-ray as palliative measures

Dr Paul B Brooks, Deputy Health Commissioner of New York State, spoke at length on the change in the practice of medicine in the past few years which had been brought about by public health measures, and advised that the general practitioner endeavor to do more work along the line of preventive medicine



NEWS NOTES



NINE THOUSAND DOCTORS HAVE REGISTERED—HAVE YOU?

Dr Harold Rypins, Secretary of the Board of Medical Examiners, reports that about 9,000 physicians had registered up to October 15, and that about 7,000 more should send their applications.

So far only one doctor has made a complaint. One physician entered a protest against the fee and the abuse of the vested rights of doctors, and the imposition of another form of "graft."

A large number of physicians have entered the State too late to be recorded in the Directory. Many of the doctors who have taken the State examination since January 1, 1926, gave addresses from hospitals and boarding-houses, and their present addresses are unknown to the Regents.

Cards have not been sent to those in the two groups, because their addresses are unknown.

Pass the word to those who have not received cards from the licensing board and tell them to apply for the blanks. Write to the Board of Medical Examiners, State Department of Education, Albany, N Y.

Dr Rypins also reports that the machinery of the Board of Regents is in operation for proceeding against illegal practitioners. Two convictions have already been secured and complaints have been prepared against six or eight other offenders. The operation of the code of criminal procedure in New York State is unusually slow and permits the accused to avail themselves of long notices and delays. Prosecutions will therefore be slow and will lack spectacular features.

Four inspectors are giving their full time to the investigation of complaints, and the number of prospective cases is large. However, many illegal practitioners against whom evidence has been sought have moved out of the State.

Many cases have also been referred to the Grievance Committee without charges being prepared, or publicity made which would be to the detriment of innocent physicians.

Altogether, the new Practice of Medicine Act has been put into active operation, and is functioning with efficiency.

IMMUNIZATION AGAINST DIPHTHERIA

The campaign for immunizing all the children of New York State against diphtheria is being well supported by the physicians of New York State. An increasing number of county medical societies have endorsed the movement and are carrying on active campaigns to induce the physicians to give toxin-antitoxin to the children of the families whom they treat. The following notes from the field have been received.

The Broome County Medical Society has appointed the following committee to instruct the public in the eradication of diphtheria and the possibility of wiping out the disease: Drs. H I Johnston, Chalmers J Longstreet, the health officer of Binghamton, Henry C Sears and M S Bloom. The committee has taken steps to induce parents to permit the immunization of children against the disease. They have urged all parents to take their children either to their family physician or to the nearest child welfare clinic or to the high school clinic, where physicians will be in charge.

The Diphtheria Committee of the Schenectady County Medical Society states that excel-

lent progress has been made both in the city and in Schenectady county in the effort to eradicate diphtheria through the use of Toxin-Antitoxin, and not only are parents promising cooperation in the movement but local physicians have reported that requests for Toxin-Antitoxin injections have been extremely numerous within the last two weeks. The Committee is cooperating with other public health agencies operating in the city and county and has been considerably aided by the Girl Scouts, who have prepared a list of approximately 10,000 small children and their addresses and age. The parents of more than 3,000 of these children have been visited by the city and county nurses.

The following immunization clinics against diphtheria were held during the last week of September.

At the high school building in Warrensburg, Warren county, by Drs J E Goodman and P H Huntington, in Monterey, Schuyler county, by Drs S B Clark and O A Allen, at Moreland Grange, Schuyler county, by Drs J M Quirk and O A Allen.

scribing and advocating a secret remedy for cancer whose nature he refuses to divulge

The Scientific session opened with an address by Commissioner Louis I Harris, M D, on "The Medical Profession and Public Health" He spoke of the relation of the medical practitioner to the Department of Health, stating that the examination of millions of school children in New York City by the Health Department can be no more than a mere gesture because of the Department's lack of knowledge of each child's home life and past He expressed the wish for the time to come when the request for funds for the examination of children, excepting those of the downright poor, could be eliminated from the budget, and emphasized that such examinations should be made by family physicians The activities of the Health Department should be more especially directed to research work tracing diseases to their sources and should not be charged with duties that might better be done by private physicians Concentration of effort in behalf of children of pre-school age was urged by the Commissioner and he cited some of the activities of the Health Department along these lines, including research work to produce a preventive serum to combat measles Such work promised a rich field of endeavor and would result in a reduction of cardiac and other diseases which develop later in life He advocated mental hygiene among children of the pre-school periods, declaring that many of the criminals of today could have been recognized before criminal tendencies had brought them to trouble, had intelli-

gent diagnoses been made in early life

Speaking of the study of disease in the adolescent child, the commissioner said that latent diseases were aroused by improper conditions, in which the adolescent child, employed industrially, worked and lived He warned against the "quack" practitioner active at the present and a menace to the legitimate profession "The voice of the quack, the voice of the charlatan, is loud in our midst, but it must not be heard" Medical men need not be afraid of heralding the truth

Dr Ernest Loewenstein addressed the Society on "The Ambulatory Treatment of Tuberculosis"

Following the Scientific session the secretary presented to the Society a statement of the activities under the auspices of the State Medical Society to eradicate diphtheria and presented the following resolution, which was adopted —

Whereas, the Medical Society of the County of Queens is cognizant of a state-wide movement to eradicate diphtheria from the communities of this state, the movement consisting of instruction of the people in the differentiation of individuals into those susceptible and non-susceptible to the disease, in the value of toxin-antitoxin as a practical and effective measure to immunize those who are susceptible, and, in the value of such immunization as a measure to eradicate this disease

Therefore be it resolved, that the Society endorses the state-wide movement to eradicate diphtheria and to endorse the ideal, "No more diphtheria by 1930"

ONONDAGA COUNTY MEDICAL SOCIETY

At the opening meeting of the season of the Onondaga County Country Club on the evening of Tuesday, October 5th, although the evening was stormy, over 150 members were present

After routine business had been transacted, Dr Dean Lewis, Professor of Surgery in the Johns Hopkins Medical School, gave a paper

on "Tumors of Bone" He illustrated his talk with a series of lantern slides of tumors of both common and rare forms He brought together a wealth of facts regarding bone conditions which any physician is likely to meet, but which are not described in a readily accessible form

ST LAWRENCE COUNTY MEDICAL SOCIETY

The annual meeting of the St Lawrence County Medical Society was held on Tuesday, October 5th, at Curtis Hall, St Lawrence State Hospital The retiring President, Dr J P O'Brien, of Louisville, presided and delivered an address on "Post-Graduate Medical Education in St Lawrence County" Dr T A Lewis, of Hammond, Vice-President, led in the discussion of the paper

The scientific program consisted of a paper by Dr R J Reynolds of Potsdam, on "Physio-

therapeutic Measures Which Have Value for the General Practitioner," and a paper by Dr T S Barnet of Potsdam, on "A Brief Discussion of Gwathmey's Method for Painless Childbirth"

Forty members were in attendance At the business meeting the following officers were elected

Vice-Pres—J A Lewis, Hammond
Secretary—S W Close, Gouverneur
Treasurer—C T Henderson, Gouverneur
President—R J Reynolds, Potsdam

ANNUAL MEETING COLUMBIA COUNTY MEDICAL SOCIETY

Annual meeting Columbia County Medical Society was held at the Worth House, Hudson, N Y, Tuesday, October 5, 1926, the President, H J Noerling, presiding

Members present — Drs Collins, Conklin, Deane, Diefendorf, Early, Edwards, Garnsey, King, Mambert, Maxon, McCormack, Nichols, C G Rossman, G W Rossman, Skinner, Taylor, Van Hoesen, Wheeler, Wilson Guests — Dr McCabe, President District Branch, and Dr Van der Veer, Albany

The following officers for coming year were duly elected President, Dr J W Mambert, Vice-President, Dr Burke Diefendorf, Secretary and Treasurer, Dr C R Skinner Censors Drs Van Hoesen, C G Rossman, Collins, Garnsey, Maxon Delegate to State Society Dr C L Nichols Alternate Delegate Dr H J Noerling

Dr King referred to lack of records of Society from 1863 to 1904, and requested the secretary to collect such data and include it in the records of the Society On motion, the secretary was instructed to comply with the request

Dr Noerling called attention of the Society to the recent death of Dr I C Washburn of Chatham On motion, Drs Maxon, Rossman, and Skinner were appointed a committee to draft resolutions upon the death of Dr I C Washburn of Chatham

The following resolution was then offered and approved by the Society

Whereas, in the death of Dr I C Washburn, the Columbia County Medical Society deeply appreciates the loss of his membership and wishes to record its sentiment of affection and regard,

THEREFORE, BE IT RESOLVED, That there be recorded upon the minutes of this Society public acknowledgment of appreciation of the life, works, and kindly deeds of Dr Washburn, and that the condolences of the Society be extended to his bereaved family

There was considerable discussion upon the advisability of appealing to the County Board of Supervisors for an appropriation to establish a County Public Laboratory Moved that the committee be instructed to obtain full data upon this subject, and that a special meeting of the Society be called for discussing the findings, before November 15 Carried

The following committees were appointed
Post-Graduate Education and Public Health
Drs Whitbeck, Galatin, Wheeler, Collins and Garnsey

Legislature Drs Rosenau, Van Hoesen, Noerling, Mason and Nichols

After luncheon, the Society reconvened with President-elect Mambert presiding, and conducted the following scientific program

Address, Dr H J Noerling

The Use of Insulin in Surgical Conditions, by Dr Edgar A Van der Veer of Albany

Dr Van Hoesen then spoke on Gas Infection with Special Reference to Antitoxic Serum

QUEENS COUNTY MEDICAL SOCIETY

A regular meeting of the Medical Society of the County of Queens was held at the Queens Valley Golf Club on September 28, 1926, in conjunction with the annual meeting of the Queensboro Tuberculosis and Health Association Attendance 80

At 6 30 P M a dinner was tendered in honor of Hon Louis I Harris, Commissioner of Health, City of New York, by the Queensboro Tuberculosis and Health Association in which the members of the County Medical Society participated

At 9 00 P M the Society convened in Executive Session The minutes of the June meeting were approved as published

Dr T C Chalmers reported for the Comitia Minora and recommended the following candidates, who were unanimously elected to membership, by ballot cast by the Secretary

T F Draper, M D, Jericho Turnpike and 220th Street, Queens Village

Carimir J Jarka, M D, 147-49 Arlington Terrace, Jamaica, L I

Coleman R V King, M D, 103-36 Lefferts Avenue, Richmond Hill, L I

Henry Kulmeyer, M D 9305 Woodhaven Boulevard, Woodhaven, L I

Thomas E Larkin, M D, 9011 196th Street, Hollis, L I

William H Nafis, M D, 300 Ascan Avenue, Forest Hills, L I

Morris Sternberg, M D 1010 Seneca Avenue, Ridgewood, Brooklyn

Robert R Yanover, M D, 9531 Roosevelt Avenue, Elmhurst, L I

The following were received by transfer

John Sherburne, M D, 8159 Lefferts Avenue, Kew Gardens, L I, from the Montgomery County Medical Society

John Archibald Smith, M D 200 25th Street, Jackson Heights, L I, from the Medical Society of the County of Franklin, as of January 1, 1926

Dr T C Chalmers then reported for the Board of Censors regarding charges against one of the members of the Society for pre-

scribing and advocating a secret remedy for cancer whose nature he refuses to divulge

The Scientific session opened with an address by Commissioner Louis I Harris, M D, on "The Medical Profession and Public Health" He spoke of the relation of the medical practitioner to the Department of Health, stating that the examination of millions of school children in New York City by the Health Department can be no more than a mere gesture because of the Department's lack of knowledge of each child's home life and past. He expressed the wish for the time to come when the request for funds for the examination of children, excepting those of the downright poor, could be eliminated from the budget, and emphasized that such examinations should be made by family physicians. The activities of the Health Department should be more especially directed to research work tracing diseases to their sources and should not be charged with duties that might better be done by private physicians. Concentration of effort in behalf of children of pre-school age was urged by the Commissioner and he cited some of the activities of the Health Department along these lines, including research work to produce a preventive serum to combat measles. Such work promised a rich field of endeavor and would result in a reduction of cardiac and other diseases which develop later in life. He advocated mental hygiene among children of the pre-school periods, declaring that many of the criminals of today could have been recognized before criminal tendencies had brought them to trouble, had intelli-

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Secretary—S W Close, Gouverneur
Treasurer—C T Henderson, Gouverneur
President—R J Reynolds, Potsdam



THE DAILY PRESS



LOUISA LEE SCHUYLER

Miss Louisa Lee Schuyler, who founded the State Charities Aid Association in 1872, died on October 10, aged 89 years, less sixteen days. She was a descendant of both General Philip Schuyler and Alexander Hamilton, and inherited the civic instincts of both ancestors. It is interesting that her first inspiration in social service came from Dr Willard Parker. The *New York Times* of October 11 relates the incident:

"Miss Schuyler's grandmother fell and broke her arm. Dr Willard Parker, the famous New York surgeon, was called in and spent the night at the house. After dinner, as the family and physician sat around the wood fire, Dr Parker told some of his experiences in hospitals. Then, after a pause he turned to the ladies present and said:

"I wish some of you ladies would visit those hospitals when you come to town. I asked a poor, bedridden Irishwoman today, who had been there several years, whether she was being taken care of. 'Oh, yes, doctor,' she replied, 'the doctors and nurses are very kind but they are very busy, and I have no friends to come and see me. So I just lie here all day long with no one to talk to, year in and year out, and the time seems long, very long.'"

Following her experiences in Bellevue Miss Schuyler worked with the United States Sanitary Commission, the precursor of the Red Cross, during the Civil War. She founded the State Charities Aid Association on May 11, 1874, in the home of her parents at 19 West Thirty-first Street, New York, and in 1874 she established a training school for nurses in Bellevue Hospital—the first in the United States.

Miss Schuyler received the honorary degree of LL.D. from Columbia University in 1915, at which time President Butler made this citation:

"A pioneer in the service of noble women in this State, founder of the State Charities Aid Association and the system of visitation of State institutions by volunteer committees, originator of the first training school for nurses, initiating and successfully advocating legislation for the State care of the insane, powerfully aiding the first movement for the prevention of blindness in little children, worthy representative of a long line of ancestors distinguished through centuries for manifold services to the city, state and nation."

The *New York Times* of October 11 has an editorial on her life, closing with these words:

"Had she been born a generation later, she might easily have become a great political leader. She was in reality such a leader in the cause of the sick and the poor, but a Deborah who stirred the Baraks, the men officials and bosses, to do what she as a woman was not in her day free to do. She is the last as she was the greatest of that group of noble women who thirty years ago transformed New York's philanthropy."

Physicians are interested in the life of Miss Schuyler because she was the founder of the laymen's part of the Trinity of Public Health organizations which also includes the medical societies and the official departments of health. It is interesting to note that lay organizations existed for a decade before they were able to persuade the office holders and law makers to establish official departments of health supported by the taxpayer's money.

NEGRO DOCTORS IN THE ANTI-TUBERCULOSIS WORK

The *New York Tribune* of October 4 contains an abstract of a report of the anti-tuberculosis work of Henry Phipps Institute among the negroes of Philadelphia. It brings out the opinion of the Director of the Institute that negro physicians and nurses are essential in combatting tuberculosis among colored people. The article says:

"The reports, compiled for the institute's advisory council of prominent physicians, scientists and educators, show that, while fewer than 100 negroes a year applied for treatment in the institute when work among their race was carried on

exclusively by white agencies, the total now has reached more than 2,600 annually since the employment of negro doctors and nurses.

"This work, although originating at the institute, has been developed in three other localities in the city. It is supported by the Philadelphia Health Council and the Whittier Center Association.

"Not only were 1,885 new cases among negroes listed last year and 794 patients reinstated, but in addition 10,200 dispensary visits were recorded, 8,943 examinations made by doctors and 12,726 visits made by nurses working among the negro patients outside the institute."

"These records show," Dr Hatfield said, "that preventive work among negroes can best be carried out by negro physicians. Indeed, I do not believe that it can be done effectively otherwise. If this is to be made possible, however, means will have to be obtained to provide scholarships for the training of these men. To a lesser degree this also is true of the colored nurse."

The Phipps Institute for the Study, Treatment and Prevention of Tuberculosis, which was founded by Henry Phipps, of New York, in 1903, and has since been aided materially by contributions from the Phipps family, is unique in its field in that it combines under one roof laboratories for research, dispensaries, and wards for the care of tuberculosis patients. It is now conducted

with the cooperation of the entire medical group of the University of Pennsylvania.

It has been the opinion among physicians that colored people have more confidence in white physicians than in those of their own race. But there is an emotional element to be considered. To the educated negro physicians and nurses are ascribed a mysterious power that comes from their unusual knowledge, and if they look wise and are sympathetic, their advice will be followed eagerly when that of a white doctor will be ignored. At any rate, it is wise to make further use of colored nurses in anti-tuberculosis work among negroes, among whom white nurses are often regarded with suspicion.

PROGRESS IN MENTAL CAPACITY

The *New York Times* of October 15 records an address given by Professor Robert A. Millikan at Yale University on the subject, "New Truth and Old," in which he says:

"The more intimately one gets in touch with any civilization of bygone days, the more he is struck by the similarity between the way people lived and talked two or three thousand years ago and the way they live and talk and think now."

"The beauty of women, the strength of men, the flavor of strawberries, the aroma of flowers, the love of friends, courtship, marriage and divorce, the racetrack, the wrestling match and the boxing bout, all of these played almost exactly the same role in the lives of the people of Rome as they play in the lives of the people of New Haven or New York. And it is around these things, too, that about 90 per cent of the interests of the average man revolve."

"Not even in what are called the higher things in life, can we be truthfully said to have made, or to be making any real progress. That question has often been raised, and often answered negatively by literary men of reputation, sometimes even by philosophers, and occasionally also by divines."

"In devotion to moral and spiritual ideals, where can the twentieth century show anything finer than the death of Socrates? And was it not 2,000 years ago in Galilee that One lived of whom the whole thinking world still says, 'Never man spake as this man'?"

The idea that man's mental capacity is the same today that it was several thousands of years ago might seem contradictory to the progress of mankind, physically, morally, and spiritually. Man's progress has been in his environment rather than in man himself. But the idea that man himself has remained unchanged requires some explanation.

What is the standard of measurement of mental capacity? A standard that is readily understood is that of mental age. Statistics show that about 25 per cent of the people of the United States have the mental capacities of children under 12 years of age. The average mentality of the people is that of a child of 14 years. Only 4 per cent have the superior mental capacity which is attained by bright students well prepared for college.

The world has always been dominated by the few of great mental capacity. The race that contains many capable leaders will overcome and annihilate the races of inferior mental capacity. The Anglo-Saxon nations have had an abundance of gifted men throughout the entire period of their history, and this large proportion of outstanding leaders has enabled them to establish and sustain world-wide empires. Yet the subjugated races have often produced a few men whose mental capacities have equalled those of the best Anglo-Saxons.

While men of genius do not seem to be more capable now than they were thousands of years ago, yet their proportion among civilized people is enormously increased, and the reason is simple. The gifted leaders married into the families of other leaders, and those of superior mental capacities survived in greater numbers than those who were unable to meet dangers or to dominate cold, and storm, and wild beasts, and still wilder men. There were a few men of genius ten thousand years ago who had the mental capacity of the genius of today, and those men were the progenitors of the leaders of today. Modern leaders are the same today that they were ten thousand years ago, and the same is true of the great mass of men who are below the average mental capacity of the race.



BOOKS RECEIVED



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BOOK REVIEWS

MANUAL OF EMERGENCIES MEDICAL, SURGICAL AND OBSTETRIC. Their Pathology, Diagnosis and Treatment. By J SNOWMAN, M.D., M.R.C.P., Lond. Second Edition. 12mo of 361 pages. New York, William Wood and Company, 1926 Cloth, \$4.00

The first edition of this manual published in 1919, was based upon the English Edition of Lenzmann's "Emergencies" which appeared in 1914, and this latest edition is presented with extensive revision and numerous additions, representing the modern teachings in Pathology, Diagnosis and Treatment of the British Medical mind. The subject matter is in condensed form, and so quite readily available for the immediate demand. While some of these teachings may not fit in with the ordinary conceptions of the American physician, it is well for breadth of mind to learn how others are doing things and solving emergencies. A careful reading of this work will aid in getting one out of a too well worn rut. This is a useful and handy volume in time of anxiety.

ROGER DURHAM

GOULD AND PYLE'S POCKET CYCLOPEDIA OF MEDICINE AND SURGERY Based upon the Fourth Edition of Gould Pyle's Cyclopaedia of Practical Medicine and Surgery Third edition. Revised, enlarged and edited by R. J. E. SCOTT, M.A., B.C.L., M.D. 16mo of 922 pages. Philadelphia, P. Blakiston's Son and Company, 1926 Flexible binding, \$2.00, with thumb index, \$2.50

The fact that this pocket cyclopaedia is now in its third edition proves its usefulness. Nine hundred and twenty-two pages of classified information, without an unnecessary word, is printed clearly in small, but readable, type upon thin paper, giving us a volume only one inch in thickness and small enough to fit into the coat pocket. Obsolete or useless information has no place in this book which is comprehensive in its contained information from Abasia to Zoster. Many condensed tables are found throughout the volume and at the end we find a dose table for drugs, official and non-official. The information in this book is accurate and useful for one who hurriedly wants to review any subject briefly.

H. M. M.

GASTRIC FUNCTION IN HEALTH AND DISEASE. By JOHN A. RYLE, M.D., F.R.C.P. Octavo of 152 pages, with illustrations. New York, Oxford University Press, 1926 Cloth, \$2.75 (Oxford Medical Publications.)

In the past year English gastro-enterologists have suddenly burst forth in a very entertaining if not always scientific array of books on the important subject of diseases of the stomach. This small work is one of the best of these that we have seen. The book is well planned, being divided into three parts, each of which is concluded with a summary and a list of references. The first part, on "Gastric Function in Health," is by far the best, and presents a very clear picture of the modern ideas in regard to this subject. Carlson's work is frequently referred to, and the importance of Reh-fuss' fractional method of gastric analysis in studying gastric function is emphasized. Part II on "Gastric Functions in Disease," takes up the subject in a general way, and attempts to explain the various symptoms of gastrointestinal diseases in a logical manner, although the author is apparently not familiar with Alvarez's researches in gastrointestinal motility, which explains many of the points the author says are still in dispute. In the third part, after explaining that the term "dyspepsia" is of no more significance than "dyspnea," the author goes on to classify "the Dyspepsias" in truly

English fashion, into five groups—habit, nervous, toxic, irritative and mechanical types. Why is it that all English authors will insist on classifying a group of symptoms? Imagine a book devoted to "The Dyspneas"! A final chapter discussing the disturbed functions following gastro-jejunostomy, is well worth reading. A.

THOMAS SYDENHAM, CLINICIAN By DAVID RIESMAN, M.D. 12mo of 52 pages. New York, Paul B. Hoeber, Inc., 1926 Cloth, \$1.50

If Paul B. Hoeber, Inc., have done nothing else to attain immortality in the world of medical tomes their books dealing with various phases of medical history and medical personality places them in an advantageous position to have such a distinction become a reality. Along with the Annals of Medical History (unfortunately known to but a handful of physicians in this country) every little while a new volume, historical in theme, makes its bow.

This latest gem, "Thomas Sydenham, Clinician," is a small book of but fifty-two pages. Just of sufficient length to read before switching off the bed-light. Professor Riesman has compacted essential facts within a small space and has lost nothing in so doing. From a literary angle every page reveals the charm of the author's pen. Every physician will profit by reading this very brief journey to the first great medical clinician.

Hoeber, Inc., as usual, have made it into a beautiful volume. But then, Hoeber, Inc., do do fine books and they should be encouraged in attempting the unusual and fascinating in medical publishing by doctors at large showing their appreciation by adding to their libraries. We sincerely recommend "Thomas Sydenham, Clinician."

T. S. W.

THE ASPERGILLI. By CHARLES THOM and MARGARET B. CHURCH. Photomicrographs by G. L. KEENAN. Octavo of 272 pages. Baltimore, Williams and Wilkins Company, 1926 Cloth, \$5.00

This book will be of interest chiefly to botanists, bacteriologists and food investigators and of limited interest to physicians. The Aspergillus group constitutes a very large percentage of the molds found in foodstuffs, soil and in various industries, in some of which they serve a useful purpose, in others are troublesome invaders or are actually harmful. From time to time, aspergilli have been described as the cause of skin, respiratory and other diseases in man and animals.

The authors have had a long experience in microbiology and have produced an exceedingly complete summation of knowledge of these molds.

Part I is a discussion of the general morphological, physiological, biochemical and pathological characteristics of the aspergilli with directions for their cultivation.

Part 2 is devoted entirely to nomenclature, classification and description of forms.

E. B. SMITH

OUR TIMES The United States 1900-1925 Vol. 1 The Turn of the Century. By MARK SULLIVAN. Octavo of 610 pages, with illustrations. New York and London, Charles Scribner's Sons, 1926 Cloth, \$5.00

To those of us who have passed forty years this volume of Mark Sullivan's not only intrigues and interests, but prompts us to attempt to interrupt and supply facts and incidents he has left out of the pages. In reading the pages many front page stories of "the other day" are again brought to our attention.

We have not the space to attempt to give a resumé



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INTRAPERITONEAL TRANSFUSION IN VON JAKSCH'S ANEMIA *

By CLIFFORD G GRULEE, M D, Chicago, Illinois

INTRODUCTION

THERE has been a great deal of discussion as to whether *anemia pseudoleukemica* infantum of von Jaksch's is a clinical entity. It is not the purpose of this paper to attempt to decide this either one way or the other. All who have dealt with disease in children have seen cases of severe anemia accompanied by splenic enlargement in which there was an increase in white cells, the majority of which were of the mononuclear type. In these same cases there was likewise some enlargement of the liver, and, during the course of the affection, we encountered nucleated red cells, usually in abundance. The condition has no analog in later life, and apparently, both from the clinical and pathologic standpoints, shows great difference from any of the recognized blood diseases of adults. In connection with the splenic enlargement, I might offer the suggestion that lighter forms of the disease, as manifested in the blood examination, might be accompanied by enlargement of the spleen of a degree not so marked as we are accustomed to associate with this type of anemia. Again, in considering the same subject, the question of the etiologic importance of rickets in respect to splenic enlargement is one which perhaps may be of some moment in this connection. If I may state my own position in this matter, I will say that in my experience a spleen sufficiently enlarged to be palpable has never been considered to be a manifestation of rickets alone. Nor have I seen any proof that rickets may cause enlargement of the spleen, though this has been repeated in almost all treatises on the subject. Again in respect to rickets, one must bear in mind that a very large proportion of infants have rickets, and to ascribe to rickets an etiologic significance with respect to this type of anemia is, I think, assuming a

great deal in view of the fact that we have no pathologic or experimental proof. Cases of this type occur long after the active stage of rickets has passed, and while their origins are insidious, one can hardly stretch the imagination to the point of thinking that a child five or six years old with a typical history and findings of a von Jaksch's anemia, whose symptoms date back only a few months, has this condition as the result of a rickets whose active stage has passed by the time the child is two years old. The presence, therefore, in the following cases of rickets and splenic enlargement, combined with severe anemia, has been interpreted on the basis of a von Jaksch's anemia and not explained on the basis of rickets.

CASE REPORTS

The following cases of von Jaksch's anemia have all received intraperitoneal injections of citrated blood in greater or smaller quantities. The technic employed was as follows:

Two methods are used for intraperitoneal blood transfusion, one direct the other indirect.

Using the direct method, blood is drawn from the donor into a 100 c c glass syringe, and injected immediately into the peritoneal cavity of the recipient. If more than 100 c c is to be given, two syringes are used. By interchanging the two only one veni-puncture and one peritoneal puncture are necessary.

Using the indirect method, the blood is drawn from the donor into a "bleeding bottle." A 500 c c glass bottle is used. Two glass tubes fit into the stopper tightly. These are bent at an angle of 45° outside of the bottle. To one glass tube a short length of rubber tubing is attached (4-5 cm). A large 14 gauge needle is fitted into this rubber tubing. This allows movement of the bottle without dislodging the needle from the vein of the donor when shaking in order to mix the citrate solution with the blood. The second glass tube extends into the bottle a shorter distance than the

* Read at the Annual Meeting of the Medical Society of the State of New York at New York March 30, 1926

of the contents of the book. It deals with such varied topics as some words not in the dictionary, the German Kaiser in 1900, Hanna did not want Roosevelt, Bryan's great speech, The World's Fair, Mr Dooley, American Plays, The Klondike, Dewey sails for the Orient, Fashions in dress, Tools on the farm, Major Gorgas, Goethals takes charge, The automobile emerges, The Boxer movement, Assassination of McKinley, the Panama Republic Formed. These are but a handful of subjects found between the covers

Mark Sullivan needs no introduction to American readers. His name as the author of a work guarantees it to be instructive and interesting. What more can one ask of an author of a book? T S W

AIDS TO PHYSIOLOGY By JOHN TAIT, M.D., D.Sc., late Lecturer in Experimental Physiology, Edinburgh University, and R. A. KRAUSE, M.D., D.Sc. Second Edition. William Wood and Co., New York, 1924. Price, \$1.50

A little resumé of general physiology written, says the author in his preface, as an aid to the student who is presenting himself for examination and who has already attended lectures and practical courses. The volume is all that can be expected of a quiz compend. The type is poor and the illustrations necessarily abbreviated. FRANK E. MALLON

THE DEGENERATIVE DISEASES Their Causes and Prevention. By LEWELLYS F. BARKER, M.D., and THOMAS P. SPRUNT, M.D. Octavo of 254 pages. New York and London, Harper and Brothers, 1925. Cloth, \$4.00 (Harper's Public Health Series)

This is, indeed, a book of preventative medicine. It points out how to prolong the onset of the "diseases of old age," hence life by taking up the subject from the very beginning.

The much discussed, but hardly practical idea of doing away with the mental and bodily defective humans is discussed with the intention of breeding from higher stock. Next is considered the relation of environment to health and disease. Also the effect of eugenics and eugenics. Poisons, endogenous and exogenous, are also blamed for bringing on the degenerative diseases sooner than they should come on.

After the subject is discussed in a general way degeneration of the special systems is taken up. These include the arteries, heart, kidneys, digestive apparatus, nervous system, and the endocrine system.

It makes a very commendable addition to Harper's Public Health Series. KENNETH MAC INNES

NERVOUS AND MENTAL DISORDERS FROM BIRTH THROUGH ADOLESCENCE. By B. SACHS, M.D., and LOUIS HAUSMAN, M.D. Octavo of 861 pages, with illustrations. New York, Paul B. Hoeber, Inc., 1926. Cloth, \$10.00

More than eight hundred pages of freely readable material are contained in this excellent treatise on the diseases of the nervous system, and emphasis is directed to their association with childhood. It is not a revision of Dr. Sachs' former book on the Nervous Diseases of Children, he states in the preface "This is a new book."

The organic diseases are discussed in a comprehensive and exhaustive fashion, and the various syndromes of the extra pyramidal system are thoroughly reviewed.

Excellent chapters on anatomy, and methods of examination are of inestimable value to those less familiar with neurologic conditions.

A chapter by Dr. Sachs on the 'Normal Child, the Normal Youth,' with some of his personal views and criticisms regarding Freudian doctrines and psycho-

analysis, will prove very interesting reading to many, and a resumé of the functional nervous disorders round out a text book worthy of a place in every library.

A. M. RABINER.

AN INTRODUCTION TO THE STUDY OF X-RAYS AND RADIUM By HECTOR A. COLWELL, M.B. (Lond.), D.P.H. (Oxf.) and CECIL P. G. WAKELEY, F.R.C.S. (Eng.), F.R.S. (Edin.) Octavo of 203 pages, with illustrations. New York, Oxford University Press, 1926. Cloth, \$3.35 (Oxford Medical Publications)

This volume admirably serves its purpose as "An introduction to the study of X-rays and Radium." In very pleasing style the physics of these agents as known from the time of discovery to the present is described. The Atomic and Periodic laws are simply put forth and the relation to radium and X-ray noted.

The description of the preparation of Radium from mine to finished product of element and gas is most interesting.

The biological effects of radiation are briefly described, as is the use of the X-ray for diagnostic purposes.

A noteworthy chapter is that which deals with the protective measures to be observed in this specialty and concludes with the very important report of the Protection Committee of the National Physical Laboratory.

Even the appendix contains information of distinct value rarely found so compiled under one cover—it includes the definitions of fundamental and derived units, notes on index notation, table of development of the osseous system and finally notes on anatomical landmarks.

In brief we have at hand a volume of exceptional worth—not only to the beginner but to the most seasoned veteran in the field of Radiation therapy and Roentgen diagnosis. Further, it is of distinct general interest from the historical standpoint of the discovery and advances of the X-ray and Radium.

R. A. RENDICH

FUNDAMENTALS OF DERMATOLOGY By ALFRED SCHALEK, M.D. 12mo of 239 pages, with illustrations. Philadelphia and New York, Lea and Febiger, 1926. Cloth, \$3.00

The author attempts to furnish in accessible form such information as is essential for medical students and general practitioners. The various skin diseases are taken up very briefly in alphabetical order. The illustrations are well chosen and include several familiar faces.

The article on Creeping Eruption does not conform to the recent findings of Kirby-Smith.

The reviewer does not agree with the statements in regard to arsenic being a rare cause of dermatitis medicamentosa, nor in regard to its use in atrophy of the nails. In scleroderma arsenic has been found to frequently be the probable cause. Its use here would be positively contraindicated.

The little book however, will prove even more valuable to students than the old compend by the same author. It will be a boon to those wishing a hurried review before examinations, and to others who may be bewildered as they attempt to assimilate the enormous amount of material in the average full-sized text. Dr. Schalek has sifted this material so thoroughly that in some places little is left except an outline. On the whole the fundamentals are there, and that is all that a student can be expected to master in the few hours allotted to this important branch of medicine in the average curriculum.

Two pages of "Dermatological Aphorisms" are an unique and highly commendable feature of this book.

BINFORD THRONE.

CASE II. No 164,651, MYRTLE Z, 14 MONTHS

Date	Hb.	R.B.C.	W.B.C.	N	S.M.	L.M.	E.	T	B	My	Nuc Rbc
3-2-23	43	3,980,000	7,600								
3-10-23	51	4,830,000	8,600								
3-15-23	100	c.c. blyood	intrapertoneally								
3-17-23	47	4,460,000	14,000								
3-18-23	47	4,610,000	12,000								
3-19-23		4,400,000	5,600								
3-20-23	53	5,200,000									
3-22-23	52	5,100,000	7,800								
3-24-23	50	5,710,000	6,600								
3-28-23	50	6,040,000	10,400								
4-2-23	53	4,120,000	10,800								
4-3-23	54	5,170,000									

living and well, two other children well

On examination the child showed large, but not very red tonsils. There was evidence of a fairly advanced rickets. The spleen was palpable—two fingers breadth below the costal margin. It is also noted that the right ear was discharging and the left drum was perforated. The electric irritability was slightly reduced. Liver dullness was three fingers below the costal margin. A roentgenogram showed some increased density in the hilus region. This child weighed 12 pounds, 1 ounce on entrance, and the weight curve was entirely unsatisfactory at the end of a month, the weight being exactly the same as at the time of entrance. The temperature of 101° F rapidly dropped and was not over 99.6° F thereafter, except for a slight rise on the 19th of the month, which dropped immediately to normal. She was given 100 c.c. of citrated blood on the 16th of March with no apparent local or general reaction. The urine was negative.

The child returned to the hospital on October 7, 1924, because of failure to talk and fits of temper. She was very evidently deficient mentally. At this time her Wassermann reaction was negative both in the blood and cerebrospinal fluid.

for several months. Three to four clay colored stools daily. He was Mexican by birth, delivered by a midwife, and, so far as could be ascertained, had no abnormalities during his newly born period. He suffered from some skin infection. The history was very unsatisfactory because of failure to obtain a good interpreter. On physical examination he showed definite signs of rickets. The general condition, however, was good, and he was quite fat and apparently well nourished. Pallor was not very noticeable. The axillary, cervical and inguinal glands were palpable—small and hard. The spleen was distinctly enlarged, almost to the umbilicus, and the liver was slightly enlarged. Pirquet was negative.

Upon entrance the child weighed 19 pounds, 4 ounces, and had an irregular weight curve. He left the hospital on November 20 weighing 20 pounds, 4 ounces.

His temperature was slightly up during his entire stay in the hospital, but never reached 101° F except on November 12, when it went to 101.6° F. It was usually between 99° and 100° F.

The urine was negative. The Wassermann reaction on October 10 was negative. This repeated on October 15 was again negative. This

CASE III No 171,342, SALVADORE J., 18 MONTHS

Date	Hb.	R.B.C.	W.B.C.	N	S.M.	L.M.	E.	T	B	My	Nuc.Rbc.	Other Findings
10-3-23	60	3,870,000	7,400	46	30	24						Microcytes and Poikilocytes
10-11-23	58	3,900,000										
10-15-23	55	3,550,000	7,000	44	16	40						
10-27-23	58	3,900,000	5,800									
10-31-23	56	3,380,000	7,400									
11-1-23	Transfusion 60 c.c.											
11-2-23	60	3,860,000	9,800	52	44	4						
11-5-23	70	3,850,000	8,400	37	48	11	3					
11-10-23	74	4,260,000	7,800	19	65	11	4	1				
11-12-23	Transfusion 90 c.c.											
11-13-23	78	4,060,000	13,400	70	25	3	2					
11-20-23	80	4,810,000	7,100	20	70	6	4					
1-1-24	95	5,480,000	7,200									

Case III No 171,342, Salvadore J., 18 months. Entered Presbyterian Hospital October 9, 1923.

The complaint was that he had had diarrhea

child was given 60 c.c. of citrated blood intrapertoneally on November 1, and 90 c.c. on November 12. It is to be noted that the highest temperature which the child had was imme-

bleeding tube. A rubber tube and mouthpiece such as used on a blood pipet is attached to the second glass tube, and a wad of sterile cotton is placed in the glass tube itself. The operator sucks on this second tube while drawing the blood, thus producing a negative pressure in the bottle and facilitating the flow of blood into the bottle.

We use 10 cc of a 2½ per cent sodium citrate solution to each 100 cc of blood. The bottle is shaken gently while withdrawing the blood in order to mix the blood and citrate solution and prevent clotting.

After the required amount of blood has been withdrawn, the stopper is removed from the bottle, the neck of the bottle flamed and the blood strained through two thicknesses of gauze into the administrative apparatus. This consists of a container similar to that used in administering salvarsan by gravity method. It usually has a capacity of about 300 cc. To it is attached a rubber tube about 30 cm in length with a glass window and a glass needle tip.

The tubing is first filled with normal salt solution and all air expelled in this manner. This, of course, is more important if the blood is to be given intravenously. This precaution also lessens the chance of any clotting occurring in the tube before the flow begins.

The container is wrapped in hot towels to prevent cooling.

Blood is allowed to flow at the rate of about 30 cc a minute.

(breach delivery). He was immediately put on condensed milk, but did not develop properly. One month before entrance he had measles, which was followed by broncho-pneumonia. Two or three days before entrance he had a slight diarrhea. Family history was negative.

The only significant things about the child upon physical examination were a very large head, a large spleen and liver and the pallor which was quite noticeable during his stay in the hospital. His weight curve was extremely irregular and unsatisfactory. During the first two days, he had a temperature running as high as 102°-104° F. He had several rises of temperature from an acute naso-pharyngeal infection from time to time, but these had entirely disappeared by the 6th of March. On the 16th of that month there was a rapid rise and fall—the peak being 102°-104° F, following an intraperitoneal transfusion of blood.

The child left the hospital on the 5th of April. On February 27 the Wassermann reaction was negative. On the 28th some slight enlargement of the peribronchial glands was noted, but the Pirquet was negative on the 2nd of March.

Case II. No 164,651, Myrtle Z., 14 months. Entered Presbyterian Hospital March 1, 1923.

The complaint was loss of weight and vomiting. The child gained fairly well until the time she was one year old. The highest weight had been 13½ pounds. Vomiting began two

CASE I No 163,360, HAROLD K., 13 MONTHS

Date	Hb	RBC	WBC	N	SM	LM	E	T	B	My	Nuc	Rbc	Other Findings
1-16-23	45	4,310,000	15,400	23	66	11							Anisocytosis and
1-18-23	50	3,640,000	10,800	27	64	8	1						Poikilocytosis
1-25-23	60	3,850,000	9,900										
1-31-23	60	3,350,000	5,400										
2-10-23	55	3,410,000	5,800										
2-17-23	55	4,030,000	7,600										
2-28-23	42	3,410,000	11,600	37	52	10	1						
3-10-23	37	3,890,000	8,900										
3-15-23	Transfusion 100 cc citrated blood												
3-17-23	35	4,400,000	13,000										
3-18-23	37	4,310,000	10,800										
3-19-23	40	4,210,000	6,800										
3-20-23	43	3,810,000	19,000										
3-22-23		4,870,000	5,800										
3-24-23	39	4,220,000	7,800										
3-28-23	43	4,980,000	7,400										
4-2-23	40	4,510,000	9,500										

A needle gauge 14 is usually used for peritoneal puncture.

Case I. No 163,360, Harold K., 13 months. Entered Presbyterian Hospital January 15, 1923.

He was brought in because of failure to gain, general weakness and lack of progress in comparison with his twin sister. He was one of twins, and was a seven months premature baby

or three weeks previous to entrance. The child was coughing, and the diagnosis of upper respiratory infection was made. This baby was prematurely born between the seventh and eighth months. Her birth weight was 3½ pounds. She had been breast fed for three months, and then put on a bread and water formula. She had had pneumonia three months before. Family history—father and mother

CASE V No 174,853, LORAINÉ A, 6 MONTHS

Date	Hb	R.B.C.	W.B.C.	N	S.M.	L.M.	E.	T	B	My	Nuc.Rbc.	Other Findings
2- 6-24	45	3,500,000	11,600	27	48	22	1			1		
2-11-24	Transfusion 30 c.c.											
2-12-24	44	3,320,000	10,780									
2-18-24	50	3,210,000	9,840									
2-24-24	Transfusion 38 c.c.											
2-25-24	50	3,600,000	12,000									
3- 2-24	Transfusion 25 c.c.											
3- 3-24	46	3,700,000	11,500									
3- 6-24	45	3,800,000	11,000	38	48	7	3		1	2		
3- 9-24	48	3,750,000	10,640									
3- 9-24	Transfusion 58 c.c.											
3-11-24	40		11,600	19	20	50	5				1	Megaloblast
3-14-24	55	5,110,000	12,240									
3-15-24	Transfusion 70 c.c.											
3-17-24	58	3,700,000	9,400									
3-22-24	73	4,260,000	11,350									
3-28-24	76	4,390,000	11,500									

gain of a pound in six weeks. The temperature was below 100° F except on the 11th of February, when it rose to 101° F and dropped immediately. Thereafter, it was normal, or but slightly above normal until March 9, when it rose to 100° F, and showed a tendency to reach that height for ten days. Thereafter, the temperature remained below 99.6° F. On February 24 this child was given 38 c.c. of citrated blood serum intraperitoneally. On March 2, 25 c.c. of whole blood was given, and again on March 9, 58 c.c. was given. On March 15, 70 c.c. more was given. The urine was negative throughout. The Wassermann reaction on February 11 was negative.

four weeks later weighing 17 pounds, 6 ounces. The temperature from the original infection lasted for about ten days, following which there was no rise in temperature at all. The child left the hospital much improved.

Case VII No 177,121, Emanuel A., Age 2½ years. Entered Presbyterian Hospital April 22, 1924.

This child came in because of weakness of the lower limbs, and the mother said that he could not walk or stand. The child was a full term baby—the oldest of twins, and weighed at birth 8 pounds. He was breast fed for two months, and after that artificially fed. From

CASE VI No 175,936, ZOURAT H., 15 MONTHS

Date	Hb	R.B.C.	W.B.C.	N	S.M.	L.M.	E.	T	B	My	Nuc.Rbc.	Other Findings.
3-13-24	25	2,330,000	19,950	72	9	15	4					A few nucleated reds.
3-20-24	21	1,780,000	13,640									
3-21-24	Transfusion 65 c.c.											
3-22-24	22	2,060,000	11,600									
3-28-24	34	2,960,000	11,750									
3-29-24	Transfusion 80 c.c.											
3-30-24	41	3,390,000	12,100									
4- 5-24	53	4,900,000										

Case VI No 175,936, Zouart H., 15 months. Entered the Hospital March 13, 1924.

The child had been in the Durand Hospital—a diphtheria suspect. She was a twin, the other twin being in the hospital at the same time with lobar pneumonia and severe anemia. She was a seven months premature baby. On physical examination the child showed rather marked signs of rickets and a few rales in the chest. There was a slight systolic murmur heard at the base of the heart and transmitted. The liver was two fingers breadth below the costal margin and the spleen one finger breadth. The child was suffering from an acute nasopharyngitis with some bronchitis and severe anemia. The weight curve was very unsatisfactory. The child came in weighing 17 pounds, 14 ounces, and left the hospital almost

the history, he had evidently had a severe form of rickets before the end of the first year. Aside from an otitis media, the child had had no illnesses. On entrance he was pale, and showed definite remains of rachitic change. The epitrochlear glands were palpable. The heart showed a systolic murmur at the apex. The spleen was palpable, and the liver was three fingers breadth below the costal margin. The reflexes were normal.

The child had a temperature of 100.6° F on entrance, and it remained up throughout his stay in the hospital. On the fourth day it was as high as 102.6° F, but at the end of the week it had become almost normal. There was a sharp rise thereafter. This second rise was very evidently the result of an acute sore throat, noticed on April 29 when the tempera-

diately following the second transfusion The child returned to the hospital on January 13, 1925, having been sent in for diagnosis The complaint was that there was some hemorrhage in the soft tissue about the eye two weeks previously The child was constipated, cried when the bowels moved, and had frequent urinations and bed wetting On physical examination he was found to be well nourished and of good color The eye showed no effect from the hemorrhage The liver was $2\frac{1}{2}$ cm below the costal margin, and the spleen was just palpable Nothing else was found except the healed rickets

Case IV No 172,698, Keene P, 11 months Entered Presbyterian Hospital November 20, 1923

The child came in because of cough, rash about the buttocks, paler and rapid breathing He had been well until an attack of diarrhea the previous summer, after which he made a very poor recovery His cough was intermittently present He vomited often when fed He had no teeth, and had a red mottled rash about the buttocks He was a full term baby—breach delivery—and weighed 7 pounds, being one of twins The other child weighed 10 pounds at birth Some difficulty was encountered in resuscitating him He was cyanotic, but had no convulsions He had been breast fed for three weeks and then fed on milk mixtures The family history was negative except for the fact that the mother had had a miscarriage of twins of four months before any of her children had been born She had five other children living and three dead, one of diphtheria, one of pneumonia and one following a mastoid infection No venereal history was obtainable

Upon physical examination this child was noted to be remarkably pale All the super-

had not disappeared, but the heart murmur was no longer to be heard This child entered the hospital weighing 13 pounds, 1 ounce, and left in just a little over a month weighing 14 pounds, 15 ounces The temperature during the first week only at one time rose to 101° F It was almost continuously below 100° F On the afternoon of December 2 the temperature rose to 101.8° F, but immediately dropped to normal next day It did not rise to 100° F again until December 9, when it rose to 101.2° F, and dropped immediately There was another rise to the same height on December 16

On December 2 the child was given 50 cc of citrated blood, which corresponds to the second rise of temperature and the highest On December 9, 100 cc was given, and on December 16, 100 cc more Aside from the rise in temperature on the 9th, the child vomited following the transfusions, otherwise, there was no disturbance in the child's general condition The Wassermann reaction on November 21 was negative, on the blood, as was that on the cerebrospinal fluid Another test on the blood November 30 was again negative The roentgenographic findings confirmed the clinical diagnosis of unresolved pneumonia The child returned to the hospital on December 22, 1924, with broncho-pneumonia (secondary to whooping cough) and impetigo At this time his spleen was still palpable, and the liver was palpable two fingers below the costal margin He ran a stormy course and died December 24 No autopsy was obtained

Case V No 174,853, Lorraine A, 6 months Entered Presbyterian Hospital, November 6, 1924

She came in because of undernourishment, constipation and sweating at night The baby was premature, born at seven months, weigh-

CASE IV No 172,698, KEENE P, 11 MONTHS

Date	Hb	R.B.C	W.B.C	N	S.M	L.M.	E.	T	B	My	Nuc Rbc.
11-30-23	40	3,690,000	21,400	17	71	11		1			
12-1-23	40	3,760,000	19,400	22	66	7	4	1			
12-2-23	Transfusion 50 c.c.										
12-3-23	38	3,780,000	16,500	28	68	4					
12-8-23	48	3,860,000	21,400	29	59	5		1	1	5	
12-9-23	Transfusion 100 c.c.										
12-10-23	50	4,280,000	18,800	16	75	5					4
12-15-23	70	4,220,000	11,300	25	59	8	3		1		4
12-16-23	Transfusion 100 c.c.										
12-17-23	72	4,560,000	14,200	28	53	11	2	2	1	3	
12-23-23	85	5,080,000	15,300								
12-22-24	70	4,800,000	58,000	51	49						

Died from broncho-pneumonia

ficial lymph glands were somewhat enlarged There was an area of consolidation in the right upper lobe The spleen was palpable, as was the liver On November 22 the Pirquet test was negative on November 30 there was a slight murmur heard over the apex of the heart The child had had an attack of cyanosis On December 7 the findings in the right upper lobe

ing $3\frac{1}{2}$ pounds The birth was complicated by placenta previa The baby was breast fed until three months, and then given condensed milk Upon physical examination she showed pallor and very definite rachitic findings The liver was slightly palpable, and the spleen was just palpable below the costal margin The weight curve was not very satisfactory, showing a

CASE IX No 183,739, ELAINE G., 3 YEARS													
Date	Hb	R.B.C.	W.B.C.	N	S.M.	L.M.	E.	T	B	Mv	Nuc Rbc.	Other Findings	
11-21-24	35	2,000,000	100,000	3	56	41						C. T 4 min, B T 14 min. Platelets 2,000,000	
11-22-24	35		92,000	5	95								
11-23-24			80,000	5	95								
11-24-24			30,000	5	95								
11-25-24	25	1,500,000	30,000	8	92								
11-25-24	Transfusion 70 c.c.												
11-26-24	Transfusion 80 c.c.												

Death

child had fallen down stairs and bruised herself severely, but there were no bones broken. At this time, it was noticed for the first time that the child was extremely pale. One week after the accident she had a nose bleed that lasted twenty minutes. She had never had one before. The child had another nose bleed about the middle of November.

The parents became alarmed about the increased pallor. A physician found that the

was 100° F, it rose gradually to 103° F just before death. There was a severe nose bleed during her stay in the hospital. Two transfusions of blood were given. Urine was negative. Death occurred at 2 A. M. on November 26.

ANATOMIC DIAGNOSIS

"Hyperplasia of the spleen, hyperplasia of the inguinal, tracheobronchial and mesenteric lymph glands, generalized anemia, hemor-

CASE X No 192,746, LEONORA S., 2 YEARS

TABLE I													
Date	Hb	R.B.C.	W B C	N	S M	L.M.	E	T	B	My	Nuc Rbc.	Other Findings	
9-18-25	51	3,810,000	28,000	3	13	84	0	0	0			Platelets reduced	
9-19-25	48	2,800,000	19,300	13	30	55		1	1		1	Platelets reduced	
9-20-25	45	2,760,000	23,300	12	15	70		1	1	3	2	No platelets	
9-22-25	Transfusion intraperitoneally 225 c.c. Intravenously 25 c.c.												
9-22-25	46	2,530,000	20,000	11	37	42		1		7	2		
9-23-25	44	2,830,000	6,700	21	56	15		4		5			
9-24-25	41	2,660,000	5,600	21	49	17							
9-25-25	45	2,560,000	5,100							12			
9-26-25	48	2,800,000	5,000	24	50	18		4		4			
9-26-25	Transfusion intraperitoneally 225 c.c.												
9-27-25	44	2,600,000	3,200	26	38	28		6	1	1			
10-1-25	73	3,440,000	7,300	32	60	2		2			70	30 megaloblast	
10-4-25	78	4,300,000	3,000	19	62	12		4		3	23		
10-9-25	82	4,100,000	4,000	36	44	10	1	5	1	4	6	Platelets 50,000	
10-15-25	83	3,910,000	4,000	31	42	20	2	0	0	4		3 megaloblasts	

CASE X. No 192,746, LEONORA S., 2 YEARS

TABLE II													
Date	Hb	R.B.C.	W.B.C.	N	S.M	L.M	E	T	B	M _j	Nuc.Rbc	Other Findings	
11- 4-25	47	2 400 000	146,000	2	72	25	1	0	0	3		No blood platelets	
11- 6-25	47	2 530 000	55 000	9	56	32	0	2	0		2		
11- 9-25	37	1,930 000	43,000	6	60	18	0	0	0	2	3		
11- 9-25	Transfusion intraperitoneally 230 c.c.												
11-12-25	38	2,200,000	7,000	7	64	18	1	2		6	1	Megaloblast, Occasional platelets	
11-15-25	45	2 210 000	1 800										
11-16-25	40	1 900,000	1 300	9	63	26			1	1	1	Bleeding time increased	
11-17-25	Transfusion intravenously 200 c.c. and splenectomy												
11-18-25	35	1 730 000	32 300	3	20	70	0	0	0	4	4	No platelets	
11-21-25	38	2 210 000	23 000	2	42	55	0	0	0	0	3		
11-23-25	33	1 730 000	11,300	2	43	51		2					

Death 11-25-25

white cells numbered 120,000. The child was a normal, full term child. Weight at birth was 7½ pounds. There is nothing further of interest in this history, and the family history was negative. Upon examination a waxen child was observed with some gingivitis and decayed teeth. The pharynx was somewhat reddened, the tonsils were large. The liver was palpable, and the spleen was large and hard. On entrance the child's temperature

rhages of the skin, petechial hemorrhages of the lining of the esophagus, spontaneous hemorrhages of the lungs and liver, subepicardial petechial hemorrhages, petechial hemorrhages of the lining of the stomach, fluid blood in the lumen of the stomach, clotted blood in the nares, hemoperitoneum, herpes labialis, diminution of the lipoid substance of the adrenal cortices, recent surgical incision of the left knee, needle puncture wounds of the abdominal

CASE VII No 177,121, EMANUEL A, 2½ YEARS

Date	Hb	R.B.C.	W.B.C.	N	S.M.	L.M.	E.	T	B	My	Nuc Rbc.
4-22-24	35	2,970,000	31,600		85	15					
4-27-24	28	2,900,000	31,800	1	33	27	1	8			
4-29-24	24	2,860,000	61,800	50	16	20	1	13			
4-30-24	Transfusion 20 c.c.										
5- 2-24	32	2,320,000	26,000								
5- 4-24	(1 30 A.M.)		28,200								
5- 4-24	(10 P.M.)		71,200								
5- 5-24	(10 A.M.)		36,000								

ture rose. On the day following this acute rise in temperature from sore throat, the child was given 20 c.c. of blood intraperitoneally. The general condition thereafter was a little better. The tonsils remained red, however, and on May 2 the cervical glands became large and the condition gradually got worse. On May 4 it was noticed that the abdomen was somewhat distended, and the diagnosis of general peritonitis was made. It was not deemed advisable to operate at the time, and the child died May 6.

The Wassermann reaction on April 23 was negative, likewise on April 28. The urine was negative throughout. The autopsy findings were as follows:

"Anatomic diagnosis. Acute generalized serofibrinous peritonitis, hyperplasia of the mesenteric, mesocolic, tracheo-bronchial and

cause of discharging ears and pallor. The pallor, however, had been present since early infancy, but the mother thought the child was well except for the discharging ear. The child was full term, normal delivery, weighing 5 pounds. He had been breast fed for three weeks, and then fed on milk mixtures. Upon examination a very pale child was found and there was a discharge from the left ear. The pharynx was slightly reddened and the tonsils were enlarged. The liver was two fingers breadth below the costal margin, and the spleen was palpable. The child had a very poor weight curve while in the hospital, but lost no weight.

His temperature throughout his stay was normal except that, on the second and third days after entrance, it was respectively 100.2°

CASE VIII No 177,446, SAM F, 17 MONTHS

Date	Hb	R.B.C.	W.B.C.	N	S.M.	L.M.	E.	T	B	My	Nuc Rbc.
5- 3-24	45	4,360,000	12,000	57	43						
5- 9-24	Transfusion 25 c.c.										
5-10-24	50	4,200,000	7,000								
5-16-24	61	4,500,000	8,000								
6-14-24	48	4,740,000	10,200								
6-16-24	53	4,900,000	15,700	30	25	42	1	2			
6-21-24	50	4,300,000	10,000								
6-26-24	50	5,000,000	9,000								
6-27-24	Transfusion 20 c.c.										
7- 2-24	58	5,200,000	10,600								
7- 7-24	60	5,000,000	8,400								

cervical lymph glands, hyperplasia of the spleen, hyperplasia of the Peyer's patches, acute bilateral fibrinous pleuritis, cloudy swelling of the myocardium, fatty changes of the liver, gas-distended small bowel, healed needle puncture wound of the abdomen, generalized icterus, acute emaciation, acute generalized anemia, prominent parietal eminences."

It may be noted that there were no signs of inflammation about the needle wound from the transfusion of blood and that the peritonitis came on only five days after the transfusion and there was accompanying fibrinous pleuritis. The danger of giving intraperitoneal transfusion of blood was recognized, but it was thought that the risk must be taken if the child were to be given any chance at all.

Case VIII No 177,446, Sam F, 17 months. Entered Presbyterian Hospital May 3, 1924.

This child was brought to the hospital be-

cause of discharging ears and pallor. The pallor, however, had been present since early infancy, but the mother thought the child was well except for the discharging ear. The child was full term, normal delivery, weighing 5 pounds. He had been breast fed for three weeks, and then fed on milk mixtures. Upon examination a very pale child was found and there was a discharge from the left ear. The pharynx was slightly reddened and the tonsils were enlarged. The liver was two fingers breadth below the costal margin, and the spleen was palpable. The child had a very poor weight curve while in the hospital, but lost no weight.

His temperature throughout his stay was normal except that, on the second and third days after entrance, it was respectively 100.2° F and 100.6° F. This child was given a transfusion of 25 c.c. of blood on May 9. The urine was negative. The Wassermann reaction was negative. He left the hospital on May 18 improved.

He returned to the hospital June 14 because of pallor, poor appetite and general weakness. At that time the physical findings were essentially the same as previously. On June 26 he developed a discharge from his left ear. The temperature was essentially the same as on his previous entrance. During his second stay in the hospital, he received 20 c.c. of blood intraperitoneally on June 20. The urine was negative. He left the hospital improved on July 10.

Case IX No 183,739, Elaine G, 3 years. Entered Presbyterian Hospital November 21, 1924.

This child came because of anemia, loss of weight and of appetite. On October 16, the

exception fever was present the whole time and from December 15 until his death reached 105° F, or near it each day

The Wassermann reaction was negative on four different occasions, and the urine at no time showed anything abnormal. No parasites were present in the stools and no blood was found in them

Autopsy was refused

Case XII No 196,192, Louise K, 9 months Entered Presbyterian Hospital January 18, 1926

This child came in because of a bad cough and weakness with loss of weight. She had had pneumonia the previous September which had lasted for two or three weeks. By the middle of November she had recovered, but she began to cough again. The child had never been breast fed. The family history was negative. On physical examination this child seemed to be quite pale and there were signs of bronchitis and some rickets, though this was not marked. The liver was slightly enlarged and the spleen was hard and easily palpable. Other than this no findings were present. The child came in with a slight fever which continued throughout her illness. She had occasional attacks of acute nasopharyngitis. Aside from this her course in the hospital was uneventful except for slight epistaxis on two mornings just

before she left the hospital. Her blood chemistry was normal.

The Wassermann reaction was negative on four occasions and the spinal fluid on one occasion. She received blood intraperitoneally—165 c.c. in one transfusion, and left the hospital in good condition on March 11.

These cases varied in age between six months and three years. Of those cases under one year, two (Cases V and XII) recovered and one (Case III) died of broncho-pneumonia after a decided improvement in the blood. Of the five cases over one year and less than two years, two (Cases II and III) recovered, two (Cases VI and VIII) left the hospital improved and one (Case I) showed no change. Four patients of two years or over died. This has been the most striking feature in the study of these children, and very likely has some very definite significance.

The results of intraperitoneal transfusion may be considered from two standpoints, the immediate and the ultimate. The immediate results in almost all cases were good. This is not shown alone by the effect upon the blood picture. Within a week's time there was usually a distinct improvement not only in the red cells and hemoglobin, but also in the white cells. The effect on the general condition of the patient was, if anything, more striking than

CASE XII No 196,192, LOUISE K, 9 MONTHS

Date	Hb	RBC	WBC	N	SM	L.M.	E	T	B	M _v	Nuc.Rbc.	Other Findings.
1-18-26	42	2,100,000	3,700	4	32	55	1	0	1	0	14	Very few platelets
1-22-26	48	2,600,000	6,800	13	41	44	0	0	2		9	
1-25-26	52	3,020,000	14,400	28	6	65	1	0	2		5	
1-26-26	Transfusion 165 c.c.											
2- 3-26	63	3,660,000	12,340	12	59	19	1	2			2	
2- 7-26	64	3,590,000	21,300	16	50	20	1	1	2	11	6	
2-11-26	73	3,660,000	11,200	34	24	31	0	1	1	8	3	
2-15-26	84	3,920,000	23,100	31	33	19	2			13		
2-20-26	74	3,230,000	11,540	34	50	1	1	2	1	11	2	
2-25-26	85	4,380,000	15,000	23	17	52	1	0	2	5		
3- 3-26	77	4,300,000	16,400	30	30	28	3	0	3	6		
3- 9-26	80	3,780,000	10,300	26	21	53						

SUMMARY

Case	Age	Severity	Amount of Blood given	Results
I	13 mos	Severe case	100 c.c.	Unimproved
II	14 "	Doubtful	100 c.c.	Eventual recovery
III	18 "	Moderate case	150 c.c.	" "
IV	11 "	Severe case	250 c.c.	Death (broncho-pneumonia)
V	6 "	Moderate case	221 c.c.	Recovery
VI	15 "	Severe case	145 c.c.	Improved
VII	2½ yrs	" "	20 c.c.	Death (peritonitis)
VIII	17 mos	Moderate case	45 c.c.	Improved
IX	3 yrs	Severe case	150 c.c.	Death
X	2 "	" "	680 c.c.	"
			(225 c.c.)*	
XI	3 "	" "	1700 c.c.	Death
XII	9 mos	Moderate case	165 c.c.	Recovery

* Intravenous

wall, emphysema of the lungs, two-mouthed right coronary artery

Case X No 192,746, Leñora S, 2 years
Entered Presbyterian Hospital September 18, 1925.

This child entered the hospital because of anemia from which the parents knew she was

and stay in the hospital, the temperature varied between 105° F and nearly normal During the last week, however, the temperature steadily mounted so that just before death it reached 105.6° F The Wassermann reaction was twice negative The urine showed nothing abnormal

CASE XI No 193,882, Jerome S, 3 YEARS

Date	Hb	R B C	W B C	N	S M	L M	E	T	B	My	Nuc.Rbc.	Other Findings.
11- 1-25	12	900,000	5,000	41	45	3	0	1	0	11	Many	
11- 1-25	Transfusion intraperitoneally			200	c.c.							
11- 4-25	13	780,000	1,700									
11- 4-25	Transfusion 400 c.c.											
11- 9-25	14	1,200,000	4,700	36	60	2	2	0	0	3	2	
11- 9-25	Transfusion 300 c.c.											
11-12-25	35	1,730,000	2,200	13	47	6				3	0	
11-15-25	43	2,800,000	3,700	30	43	24				3	0	No platelets
11-20-25	55	3,000,000	6,000	57	38	4	0	1	0	0	0	Few platelets
11-23-25	55	3,400,000	14,100	57	12	22		4		5	0	
11-24-25	Transfusion 300 c.c.											
11-25-25	65	3,400,000	31,000	28	22	47	0	1		2	2	Moderate number of platelets
11-29-25	75	3,750,000	15,000	24	33	42	1	0	0	0	0	Platelets reduced
12- 3-25	80	4,020,000	13,600	9	41	41	0	6	0	3	3	Very few platelets
12- 7-25	68	3,470,000	15,000	24	54	19	0	1	0	2	2	
12- 8-25	Transfusion 200 c.c.											
12-13-25	40	3,200,000	4,700									Almost all small lymphocytes, no platelets
12-18-25	32	2,030,000	1,600									
12-18-25	Transfusion 300 c.c.											
12-21-25	22	1,550,000	300	10	60	20	(Only 20 cells counted)					No Nuc. reds
	Death 11-23-25											

suffering Since August 29 she had been listless and had lost weight, and she had become pale The parents noted that there was a swelling in the abdomen There was burning on urination The history otherwise was negative On examination the child seemed to be extremely pale The cervical, axillary, epitrochlear and inguinal glands were palpable The left border of the heart was about 2 cm to the left of the nipple line There was a systolic murmur heard best at the apex The liver was felt about 6 cm below the costal margin, and the spleen about 4 cm below the level of the umbilicus There was marked improvement following the use of large quantities of blood intraperitoneally Not only did the anemia clear up, but the other symptoms rapidly improved Roentgenotherapy of the spleen was given at the same time

The child left the hospital on October 16 very markedly improved She returned on November 4 in practically the same state she was in previous to her first entrance, if not worse The spleen at this time was so large that it impinged on the pelvic rim, causing pressure on the stomach and consequent vomiting Roentgenotherapy of the spleen resulted in reduction of the size and relief from the vomiting On November 17, it was decided to do a splenectomy because other measures had proven of no value The splenectomy, however, failed to relieve the condition, and the child died on November 25 During her sec-

Only partial autopsy was allowed, and the anatomic diagnosis was Marked general anemia, myeloid metaplasia of the liver, ascites, multiple spontaneous hemorrhages of the skin

Case XI. No 193,882, Jerome S, 3 years
Entered Presbyterian Hospital October 27, 1925, on the service of Dr Bevan

He came in because of a pallor which had been present for five months and pain in the abdomen This pallor had been noted since the preceding July and there had also been an indefinite pain in the abdomen at that time and since There was some vomiting, but no loss of weight Aside from this there was nothing of interest in the history The examination revealed an exceedingly pale boy, large tonsils, a very rapid heart, over which there was a loud systolic blow well transmitted The liver was 7 cm below the costal margin and the spleen 6 cm There was some enlargement of the inguinal glands also of the cervical and axillary glands The left epitrochlear was palpable

This child was given a number of intraperitoneal transfusions of blood which resulted in a marked betterment, so that by December 3 the hemoglobin, which had been at 11 per cent, had reached 80 Thereafter there was a very marked and rapid decline, and the child died on December 23 Throughout his course in the hospital he had an irregular fever often running to 100° F-103° F or 104° F There was a period from November 12 until November 24 when this was not true, but with this

the one which interests us in this paper The interacinar pancreatitis is the result of arteriosclerosis and is usually associated with diabetes This bears little, if any, relation to infection The pathological process is confined to the lobules with destruction of the acini and the islands of Langerhans Chronic interlobular pancreatitis does not involve the lobules

Histology—The histological picture, as shown in Figure 1, is that of a tubo-alveolar gland with lobules connected by the interlobular connective tissue. The acini are in definite lobules, and the interlobular tissue contains the blood vessels, ducts, and lymphatics The islands of Langerhans are in the central portion of the lobules

Lymphatics—The lymph drainage to the pancreas is not general but is confined to definite areas Figure 2, from the work of Bartels (2) shows the body and tail of the pancreas receiving lymph, chiefly from the left side of the abdomen From this illustration we see the head of the gland is not affected to any great extent The work of Franke (6) as illustrated in Figures 3 and 4, reveal direct lymph drainage from the gall-bladder to the head of the pancreas This is confined to the area of pancreatic inflammation between the duodenum and the converging ducts of Santorini and Wirsung The work of Braithwaite (3) in Figure 5, shows

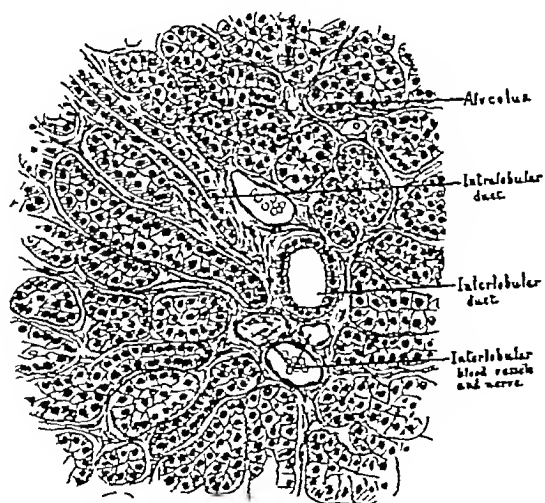


Fig 1 Section of pancreas showing interlobular tissue with vessels, nerve, and duct and surrounding tubular alveoli.

the glands injected in the iliocecal region with retrograde drainage to the pancreatoduodenal lymph nodes in the region of the head of the pancreas The pancreatoduodenal lymph nodes are connected with those along the common duct and portal vein From the above data it would seem that the head of the pancreas is

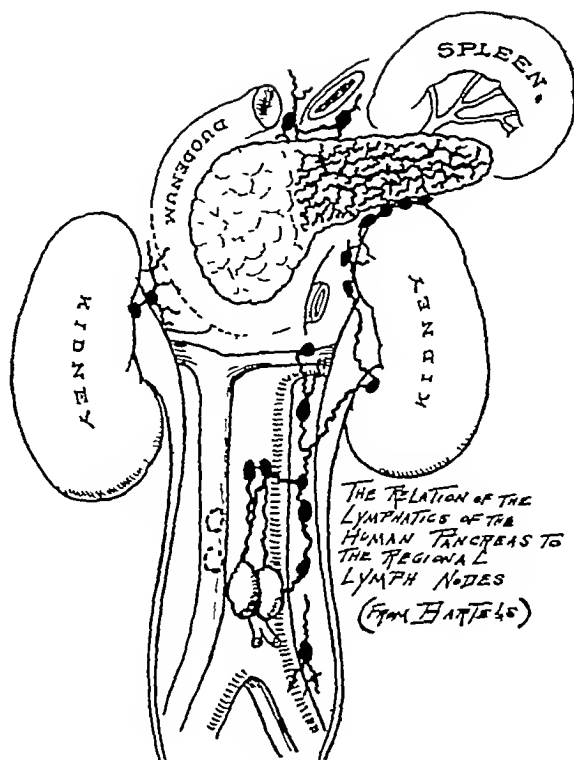


Fig 2

chiefly involved in infection of the right side of the abdomen, whether it be cholecystitis, appendicitis or ulcers of the stomach or duodenum

Etiology of Chronic Pancreatitis—It seems that chronic interstitial pancreatitis is the result of lymphatic infection from some other primary abdominal focus Deaver and Pfeiffer (4) report a series of fifty-two cases of chronic pancreatitis in which the head alone was affected in forty-two In only nine was the tail involved In twenty-seven cases there was well marked evidence of involvement of the lymph nodes in the neighborhood of the head of the pancreas They found the infection localized chiefly in the triangle of the pancreatic infection, between the duodenum and converging ducts of Santorini and Wirsung They attribute the chronic infection to lymphatic origin If the infection ascends the pancreatic ducts, the induration should be more general The lymphatics from the gall-bladder drain only to the triangle of pancreatic inflammation, as has been demonstrated by Franke. Deaver reported seventy-nine patients with chronic pancreatitis at the Lankenau Hospital, seventy-two or ninety-one per cent showed evidence of biliary infection, forty-two or fifty-three per cent had calculi, while thirty or thirty-eight per cent showed a non-coliculous inflammation W J Mayo (13) reports that ninety per cent of the cases having acute and chronic pancreatitis have been operated upon for infected

that on the blood picture. While in many instances there was a sharp rise of temperature within a few hours after the transfusion, this usually subsided and was followed within twenty-four hours by a very definite change in the clinical picture. These children who had previously been much fatigued by the slightest effort, were very apathic and peevish, with poor appetite and no response to surroundings, would often become cheerful, alert, and show a much increased desire for food. In the one case where death followed from acute fibrinous peritonitis the first symptoms of this appeared five days after the introduction of blood in a child who was suffering from a severe septic sore throat. Both the pathologist and I interpreted this as a metastatic peritonitis, but one cannot deny the possibility either that the blood so introduced had produced an area which was favorable for the cultivation of bacteria, or that some infection had been introduced at the time of the transfusion.

Of the ultimate results one cannot speak so positively. It is apparent that in the younger children in many instances the reaction to blood transfusion was all and more than could be expected. In some instances this was so marked as to suggest that the transfusion had very little to do with the child's recovery, but this was not usually the case, and it is possible that small quantities of blood may have so stimulated the blood forming organs as to have obtained the desired result without further transfusion. On the other hand, in the older

children large quantities of blood brought about very marked amelioration of the condition over several weeks time. The surprising fact is that there came a period when the child was apparently well on the road to recovery when neither intraperitoneal transfusion nor other therapeutic measures were of any value in preventing a marked and rapid decline to the point of death.

There is still to be considered the question of whether such transfusions had a deleterious effect upon the patient. This seems hardly to be the case. In those cases where blood transfusion was followed by a rapid improvement, and which ended rather catastrophically with death, no other measures tried seemed to have had any better effect. Not only is this true, but it is also true that in most instances these cases were undergoing a rapid decline before transfusion was attempted.

In conclusion, we may say that, judging from this series of cases, there seems to be an age element which is a determining factor in von Jaksch's anemia. The younger children, that is those under two years, do much better than do the older ones. Intraperitoneal transfusion gives the possibility of introducing large quantities of blood at short intervals without much difficulty. The results obtained show certainly that the immediate amelioration is fairly constant and often quite marked. The ultimate results, in older children especially, are not nearly so happy.

THE CLINICAL FEATURES OF CHRONIC PANCREATITIS*

By J WILLIAM HINTON, M D, New York, N Y

Associate in Surgery at New York Post-Graduate Medical School and Hospital Adjunct Assistant Visiting Surgeon, Bellevue Hospital

ATTENTION was first drawn to chronic pancreatitis as a clinical entity by Mayo-Robson in 1900 (11). At that time he thought the pancreatic lesion was the one of primary importance in a high percentage of chronic upper abdominal surgical conditions. He was of the opinion that a correct diagnosis could be made in the majority of cases of chronic pancreatitis before a laparotomy was performed. In this paper we are interested in the clinical features of chronic interstitial pancreatitis, which are exhibited after laparotomies have been performed for cholecystitis, ulcers of the stomach or duodenum, or appendicitis. Attention has recently been drawn to chronic pancreatitis as a

clinical entity, in this connection, in a paper which I published in *Surgery Gynecology and Obstetrics* (7). The symptoms of the associated lesion from which pancreatitis arises or with which it is associated, usually overshadow those of pancreatitis and make the primary diagnosis of the latter more or less speculative. After the primary lesion has been eliminated by surgical intervention, chronic pancreatitis should be diagnosed with a much higher degree of accuracy without submitting these patients to a second operation.

Chronic pancreatitis is divided into two forms. *First* Chronic interlobular pancreatitis. *Second* Chronic interacinar pancreatitis. The interlobular type results from bacterial infection of the connective tissue lying between the lobules, and is

* Read before the Annual Meeting of the Medical Society of the State of New York, at New York, March 31 1926

pancreatitis is usually confined to the head of the gland and from figure No 6 one will see the marked increase in the interlobular fibrous tissue and, to a smaller degree, in the interacinar tissue. The islands of Langerhans are not affected. The acini at the periphery of the lobules may atrophy. In view of the fact that the lymphatic drainage is confined to the interlobular tissue and to the head of the gland, one would expect to find this portion of the gland chiefly involved. The pathological data we have on this subject will be published at a later date

Signs and Symptoms of Chronic Pancreatitis
—The history, physical examination and laboratory findings are the most important aids in the diagnosis of this condition. The acute exacerbations of the chronic disease give one the lead on which he is to arrive at the diagnosis. Patients presenting themselves with a history of attacks of pain, similar to the ones they had before gall-bladder or stomach surgery, should be suspected of having chronic pancreatitis. *Pain*—This is

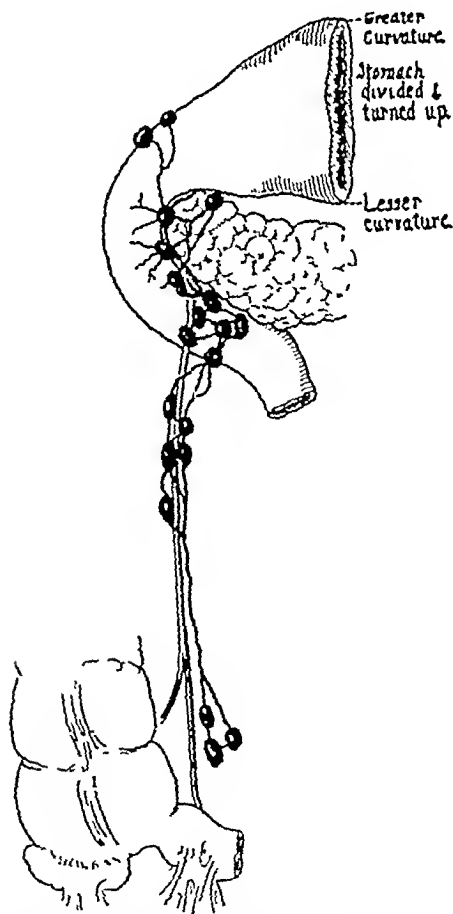


Fig 5 Diagram showing area of glands injected in the living subject from an ileocaecal gland puncture. (From Braithwaite.)

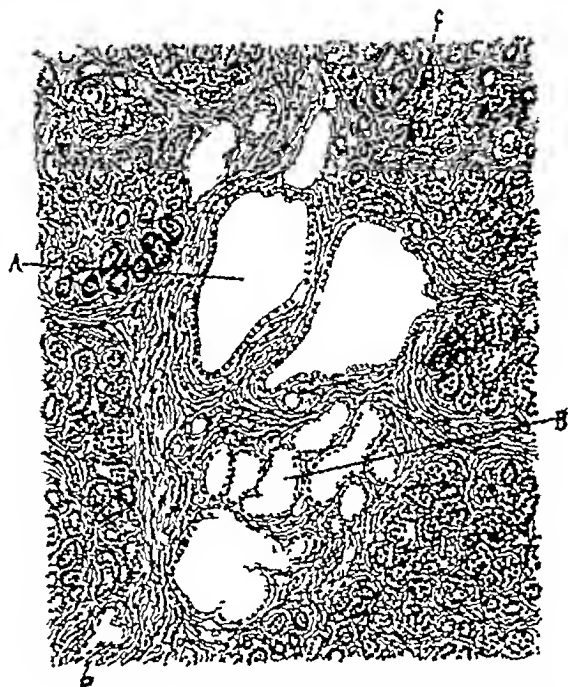


Fig 6. Section from a fibrosed pancreas showing a combination of centrilobular and perilobular types. There has been obstruction and dilatation of the main ducts, A, and their branches, B. The lobules are separated by broad perilobular bands of fibrous tissue and the individual acini, C, in the lobules are similarly separated by a centrilobular fibrosis (From Adam and McCrae.)

the chief complaint of the patient and the individual is usually seized with a severe upper abdominal pain which is constant in character. It is difficult for these patients to localize the pain. Occasionally they say it is in the right upper quadrant and radiates to the back. More frequently they state that the pain is on the left side in the region of the left kidney. Due to its location on the left side, it would make one suspect a renal calculus. The intensity of the pain will vary in different individuals, presumably depending upon the severity of the pancreatic involvement. These attacks may last from a few hours to forty-eight to seventy-two hours. If the pain is located in the left kidney region at the beginning of the attack, it quite frequently localizes itself in the upper abdomen in the middle of the epigastrium after forty-eight hours. The patient usually feels normal within a few hours after the pain subsides. The cause of the sudden attacks of pain is probably due to acute exacerbation of the chronic lymphangitis, which results in swelling and edema of the head of the gland, or it may be due to a chemical alteration in the secretion of the pancreas, which is normally alkaline. The infection may convert the trypsinogen into an activated trypsin with its proteolytic properties. *Nausea* is not commonly seen in this condition. *Vomiting* is usually en-

gall-bladder, usually with gall-stones Archibald in 1913, in a paper titled "A New Factor in the Causation of Pancreatitis" (1), reported thirty-six cases of pancreatitis in sixty per cent of which gall-stones were absent He attributes the pancreatitis to a spasm of the phincter of Oddi at the papilla, which results in bile entering the pancreatic ducts Mann and Giordano (10), working experimentally on goats, doubly ligated the common bile duct and divided it as its entrance into the duodenum The animals lived from one to thirty days In none was there either macroscopically or microscopically an area with the appearance of acute hemorrhagic pancreatitis The results of these experiments emphasize first, that with the pancreatic duct emptying directly into the common bile duct and the latter completely obstructed, bile was not forced into the pancreas except after a considerable length of time Second, that bile did pass

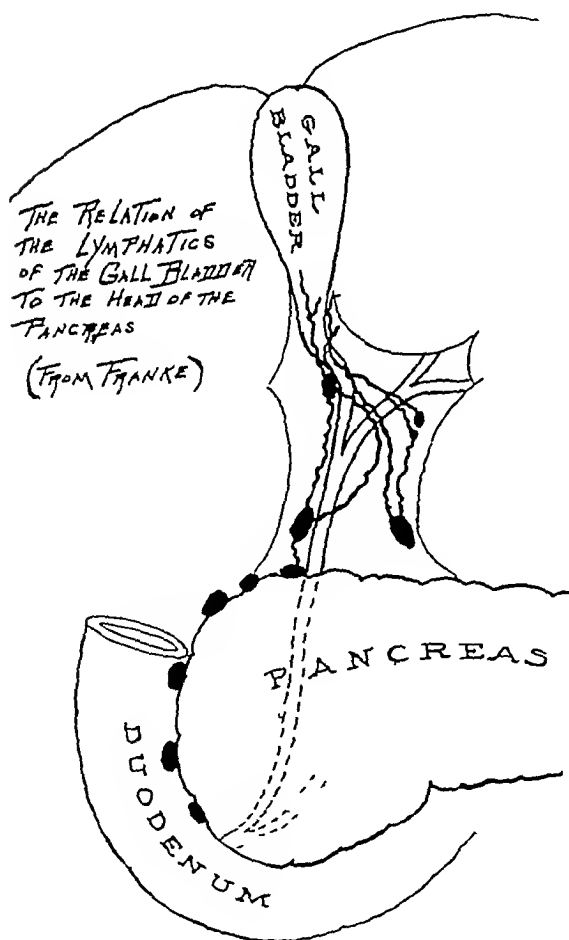


Fig 3

into the pancreatic duct and infiltrated the pancreas completely when under the maximum of pressure which the physiological mechanism of

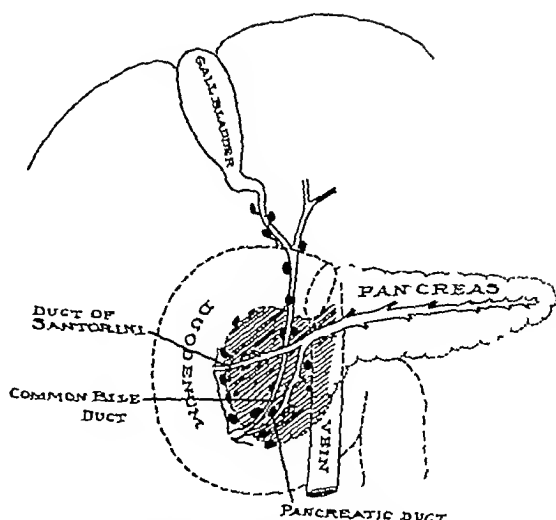


Fig 4 The Darkened Area is the portion of the Pancreas involved in Chronic Pancreatitis It also represents the relation of the Pancreatic Ducts and Common Bile Ducts

- the animal could produce Acute hemorrhagic pancreatitis was not seen From the data on the relation of the duct of Wirsung to the common bile duct, which is shown in Table 1, it is anatomically possible for obstruction existing at the ampulla to convert the two ducts into a continuous channel and allow bile to pass in the pancreatic duct in 35 cases

Sweet (15), in working experimentally on dogs, has been able to remove a portion of the pancreas and join the head of the pancreas or the duct to the intestine without danger of pancreatitis, either acute or chronic, for as long as an eleven months' interval From this it would not seem that infection ascends by way of the duct

Eggers (5) gives two possible causes of acute pancreatitis first, that symptoms are due to infection or ferment action owing to the entrance of bile or duodenal contents into the pancreatic duct, second, that it is an infection carried to the pancreas by means of the lymphatics He leans to the theory that infection as such has nothing or little to do with acute pancreatitis, but that it is due to the action of the liberated pancreatic ferments on the surrounding tissues In six cases reported by him, five had gall-stones and the sixth had a cholecystitis

From the above data it would seem that the gall-bladder and biliary system are the primary factors in producing chronic infection of the pancreas Ulcers of the duodenum probably play the second most important role, while the appendix and iliocecal angle have a direct lymphatic drainage to the head of the pancreas

Pathology—The interlobular connective tissue is more susceptible to bacterial infection than the other pancreatic tissue Chronic interstitial

taneously subsides after removing the primary abdominal focus

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THE TONSIL AND ADENOID PROBLEM IN NASSAU COUNTY*

By GERALD HUTCHINSON COX, M.D., F.A.C.S., Glen Cove, N. Y.

ONE of the problems confronting the Nassau County Tuberculosis and Public Health Committee, which furnishes nutrition and health workers to the public schools of the County, is the task of securing adequate hospital treatment for the large number of adenoid and tonsil cases annually requiring operation.

It seemed to the writer, a member of the committee, that a careful study of the adenoid and tonsil situation in the schools might yield results of considerable value.

The subject was first approached through figures furnished by the Department of Education at Albany, and secondly, by the examination of a series of school children by me personally.

The State Medical Inspection Law calls for one annual physical examination of each school child in the State, for school inspection whenever expedient, and for preventive care of all children suffering from disease or physical defect.

Dr. Howe and Dr. Mace, of the New York State Department of Education, kindly furnished me with the departmental statistics, which give 37,950 public school children in Nassau County during the year 1924-1925. Of these, 20,181 live in the rural districts. Of the 20,181 (rural district children) the Department of Education found 3,365 adenoid and tonsil cases needing treatment, equal to 11 1/5 per cent. The percentage requiring operation in the

cities such as Glen Cove and Long Beach is not at hand. Probably the proportion among the city children does not differ considerably from the rural children. According to the same source of information, of the 3,365 cases needing treatment, 808, or 24 per cent, were operated upon during the year. If we accept the official figure, we are confronted with a serious problem. Unfortunately, however, my own studies indicate that the percentage of adenoid and tonsil cases requiring treatment is materially larger than the figures of the Department of Education.

For the purpose of my survey, I decided to examine about 300 children in five schools situated in an imaginary line bisecting Nassau County. These schools are located at Oyster Bay, Locust Valley, Roslyn Heights, Mineola and North Belmore. In all, 309 were examined, of which 260 were chosen by class rooms picked at random because they were not engaged in recitations at the time of my visit.

I found that 53 3/4 per cent need operation, 13 1/2 per cent had already been operated (many of them in New York City before they moved to Long Island), 32 3/4 per cent do not require treatment.

In my work, the majority of the children were examined by artificial light, using head mirror, tongue depressor, post-nasal mirror and nasal speculum. Considerable care was taken in selecting the operative cases. The mere presence of a pair of slightly enlarged healthy tonsils in a child's throat was not con-

*Read before the Nassau County Medical Society, October 26, 1926.

schools examined, when physical defects are found, the children are requested to give cards to their parents which state that the child should be taken to his physician or to a clinic for diagnosis and treatment. The children often fail to turn these cards over to their parents. Even if there is a school nurse in attendance, many of these nurses are on part time and consequently unable to give the requisite amount of attention to the work.

The ignorance of parents as to the necessity for adenoid and tonsil operations is appalling. Some sort of educational campaign will be necessary to make parents realize the importance of having adenoid and tonsil defects removed.

We come now to the question of how the poor child, unable to pay for treatment, can secure the necessary hospital care. At the present time, we may say that practically the only institution in the County where free treatment can be obtained is the Nassau Hospital. A patient entering the ward is expected to pay \$8.00 for a bed in the ward and use of the operating room. If the patients are too poor to pay, the hospital fee is remitted in whole or in part after investigation by the social service worker. The method of procedure is as follows: a list of children needing operation is sent in by the school nurse. The next step is a visit to the child's home by the social service worker of the hospital. Many of these children live at considerable distances from the hospital and far apart. The number of ward beds is limited. Consequently there is often a long period between the time when the child's name is handed to the hospital authorities and the day when the case is actually admitted to the ward for operation.

PRE-OPERATIVE CARE OF PATIENTS

Every child, before being subjected to a tonsil and adenoid operation, should have a complete physical examination, including the heart, lungs, kidneys and coagulation time. The nose should be examined by artificial light and a nasal speculum should be used so that the child may not be operated upon for tonsils when he is suffering from some obstruction in the anterior nares. It is important to take the temperature and to postpone operation if it is over 100 degrees F. In examining each child, considerable care should be given not only to the indications for removing the tonsils and adenoid but also to his general condition and ability to stand the operation. Cardiac and nephritic cases, as well as markedly undernourished children, should be sent into the hospital several days before operation for observation.

It is not within the province of this paper to discuss the type of operation to be performed. It is essential that a complete removal of the tonsil be carried out in a thoroughly surgical manner and in as dry a field as it is possible to

produce with a good suction apparatus. The operation on children should always be done under a general anaesthetic, of which the safest is gas and ether or ether alone for very young children. Moore, of the Jackson Bronchoscopic Clinic, has called attention to the fact that the largest number of pulmonary abscesses found in any one section of the country come from the vicinity of eastern Massachusetts, where most patients are operated upon in a sitting or semi-recumbent position under general anaesthesia. Apparently the recumbent position, with the head slightly lowered, is less apt to be followed by aspiration of blood or bacteria and the production of a foreign body pneumonia or lung abscesses.

In some hospitals, notably the Tonsil Hospital of New York, patients are given calcium lactate three days before operation to prevent bleeding. The dosage is $7\frac{1}{2}$ grains three times a day for small children and 10 grains for older children.

It is now generally recognized that cases with status lymphaticus and an enlarged thymus gland take anaesthetics badly, especially chloroform. A hypertrophied thymus gland can usually be recognized by radiography, and the gland will rapidly diminish in size under X-ray treatment. Of course, in routine tonsil work, it is hardly possible to make radiographs of ward adenoid and tonsil cases, although all operators should bear this condition in mind.

An editorial in the *Journal of the American Medical Association* of April 17th, 1926, has called attention to the observations of Zingher, working in the New York City department of Health, on the association of diphtheria with tonsil operations. Zingher has found that diphtheria is apt to develop in a patient who has just been operated upon for adenoids and tonsils if the patient is susceptible, as shown by a positive Schick test and if he is a carrier of virulent diphtheria bacilli. The *Journal* points out that although "these three factors—absence of general immunity to diphtheria, presence of virulent diphtheria bacilli in the nose or throat, and an operation, such as tonsillectomy—may not come together frequently, yet Zingher believes that when they are present in the same person, diphtheria is quite certain to follow and the disease is likely to prove unusually dangerous. The serious nature of the superimposed diphtheria arises, Zingher adds, from the danger of an early and rapid absorption of a fatal dose of toxin from the extensive raw surface, and from the difficulty in recognizing the disease in the sloughing post-operative membrane until much valuable time has been lost and the opportunity for effective administration of antitoxin has slipped by."

Zingher recommends "that nose and throat cultures for diphtheria bacilli be taken as a routine before such operations as tonsillectomy and ade-

sidered an indication for operation. In the group requiring operative treatment were included the following:

Adenoids and hypertrophied tonsils, which by their size interfered with breathing and swallowing, diseased tonsils with pus or secretion in the crypts where the child's general health and nutrition obviously suffered, tonsils associated with attacks of sore throat, glands of the neck, ear ache or discharging ears, children who were backward mentally, behind in their grade or inattentive in their work when found to have diseased or enlarged tonsils and adenoids.

In New York City, working many years in the nose and throat department of the Manhattan Eye, Ear and Throat Hospital, it frequently fell to my lot to decline to operate upon patients referred by the school authorities, when it seemed to me to be unnecessary. In Nassau County, on the other hand, the school physicians are apparently confining their recommendations for operation to the most pronounced types of hypertrophy or disease.

There are approximately 15,000 pre-school children in Nassau County. It is probably fair to assume that at least 15 per cent of these need adenoid and tonsil operations. As stated above, there were 37,950 school children in the County during the year 1924-1925, of whom, if my investigation is correct, over 50 per cent need treatment. Adding the number of pre-school children needing operation to the number of school children requiring treatment, we find that there are probably at least 21,000 children in Nassau County today in need of treatment.

It is now generally recognized that the tonsil operation is essentially a hospital operation and that the patient should not be operated upon in the physician's office, in the clinic or at home.

WHAT HOSPITALS ARE AVAILABLE FOR TAKING CARE OF ADENOID AND TONSIL CASES?

- A Nassau Hospital
- B Glen Cove Community Hospital
- C Mercy Hospital in Hempstead
- D New York City Hospitals

A Nassau Hospital took care of 540 adenoid and tonsil cases during the year 1925, of which about 100 were private cases. Some of the private cases were adults.

B In the Glen Cove Hospital during 1925, 116 adenoid and tonsil cases were operated upon. A number of these patients were adults and all were private cases with the exception of a few children whom I operated upon with the help of Dr. Jackson, Dr. Derby's associate, and Dr. Maryland Burns, who is working on cases of malnutrition.

C At the Mercy Hospital, from July, 1925, to July, 1926, 10 adults and 105 children were

operated upon for adenoids and tonsils. The majority were private cases.

D Some of the New York City hospitals may be utilized to take care of the poor children in Nassau County who are unable to pay for operations, but many of the city hospitals are already overtaxed by the local cases.

Thus we see that during the past year, with some twenty odd thousand children in Nassau County needing operative treatment, not over 800 have had hospital operations in the County during that period. Doubtless a small number of children have been operated upon in the doctor's office or in the children's homes by private physicians, but I feel certain, from my knowledge of the physicians of the County, that this does not take place to any appreciable extent.

DEFECTS IN SYSTEM OF MEDICAL SUPERVISION

My visits to the schools, where I examined these children, showed that there are many defects in the school system of medical inspection. The State Medical Inspection Law, as stated above, calls for one annual physical examination of each school child in the State. The trustees of some of the schools are not carrying out the provisions of this law. In one large school in the County, the trustees have a contract which calls for the payment of 75 cents for each child examined by the school physician. As the trustees do not care to spend but a small sum of money on medical examination, they only permit the school physician to examine the pupils in the first and fifth grades, with the exception of a few pupils who are transferred from other schools during the year. In another school of approximately 500 children, the school doctor is paid \$125.00 per year for making a complete physical examination of each child, giving toxin anti-toxin treatment for prevention of diphtheria and for consultation if a case of infectious disease is suspected. In this particular school, it is obvious that the physician is very much underpaid, although he performs his duties in a conscientious fashion because of his interest in the health of the community.

One of the most glaring defects discovered by me in the schools which I visited, was the fact that there was no school nurse in one institution with approximately 600 pupils. In this school, the physician examined the pupils, wrote down the physical defects found on cards which were filed away and promptly forgotten. During the past winter, the Nassau County Tuberculosis Committee sent a nutrition worker to visit this school once a week. This young lady has endeavored to follow up the tonsil cases who were recommended for operation, but has met with little success on account of the limited time at her disposal.

The follow-up system for operative adenoid and tonsil cases is far from perfect. In all the



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Each child should remain approximately 24 hours in the hospital after operation for observation and treatment If this is done, the danger of post-operative hemorrhage and post-operative pneumonia is considerably diminished I am glad to say that during the past twelve years a marked change for the better has taken place as to the need of post-operative hospital care for tonsil cases For example, in 1913, in a report made by me to the New York Academy of Medicine, it was found that of twenty-two hospitals and dispensaries questioned by the New York City Visiting Committee of the State Charities Aid Association, nine lived up to their obligations and kept their patients approximately 24 hours or longer for observation and treatment In four of the other institutions, the children were allowed to go home directly after operation In seven clinics they were kept from one hour to twenty-four hours, usually from one hour to three hours One well known clinic sent its patients home "as soon as sufficiently recovered from the anaesthetic," notwithstanding the fact that its operators always perform a total enucleation of the tonsils under chloroform or ether Two other clinics performed tonsilleotomies and allowed the children to go home two hours later This report awoke the school authorities, the New York City Department of Health and the Public Health Committee of the Academy of Medicine to the need of a radical change, which was promptly recommended Consequently, at the present time, practically all good hospitals keep their tonsil cases in the wards at least through the night following operation The principal offenders of today are private physicians who operate in their offices or in the homes of poor patients who live in crowded, unsanitary surroundings

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all over the United States New York City has a number of mild cases that are known to the Department of Health They are allowed their freedom under the following conditions

- 1 They have no open lesions
- 2 There are no nasal discharges
- 3 They do not handle food
- 4 They are visited by a doctor regularly

LEADERS AND FOLLOWERS

A follower is just as essential as the leader, although he may not receive the plaudits or the financial reward that often go to a commander

Leadership requires special ability which only the few possess If all were leaders there would be confusion But usually some one has a quality in such great amount that his associates concede his superiority and his leadership

A leader implies the existence of followers Ability to do something better than one's fellows does not make him their leader He must be able to inspire others to follow his example, else he is only an individual worker

A County Medical Society consists of a few leaders among many potential followers A few doctors will serve on the important committees,

and will supply the power which makes the machinery of the Society go

A leader in a county medical society will understand its members, and will readily find some activity which will be approved by all, and be put into active operation by a considerable number Half a dozen leaders of this kind may be found in every county medical society

Leaders are often impatient because they have to do so much work, and those who should be followers are often jealous of the leaders There is a proper field for both leaders and followers That county medical society is a success in which the groups of leaders and followers each give credit to the other with entire courtesy and goodwill

THE BOY SCOUTS' COURSE IN FIRST AID

The Boy Scouts organizations offer unique opportunities for physicians to reach the public with medical information First aid is taught to all Scout troops, but the instruction is often of the old fashioned brand because it is given by amateurs and not by medical men

One of the first subjects taken up is how to stop hemorrhage A physician or trained nurse, confronted with a case of bleeding, would grasp or compress the bleeding part, and so would stop the bleeding at once Then would follow the procedure that was adopted to each particular case, be it bandaging, compression, or a tourniquet A doctor is the proper person to teach first aid in emergency wounds, and teach the boys the same procedures that he himself would follow in an emergency treatment in the field

Associated with the instruction in stopping bleeding should be an outline of how to dress a wound, especially how to use a wet dressing in order to prevent or control infection There is nothing difficult in teaching these subjects, but only a doctor knows what procedures are of essential value

The subject of artificial respiration is taught to most Boy Scouts, and fairly well, too, judging by the frequent newspaper reports of lives saved by the prompt action of Boy Scouts The Schaeffer, or prone pressure method, is the only method advocated by the industrial physician, and it is easily taught to any Boy Scout A physician can do a public health service as well as brush up his own knowledge by teaching a Boy Scout troop how to do artificial respiration

Boy Scouts are eager to learn practical sanitation, and to demonstrate it in their camping trips Here is an opportunity for a doctor to give talks and demonstrations on the disposal of excretions, the care of garbage, the selection of a water supply, and the principles of pure milk He can supervise a survey of sanitary conditions of a town, to be made by the Scouts

The Boy Scouts think a physician to be a superior being, endowed with mysterious insight into knowledge denied to common mortals The doctor has a unique opportunity to instill practical knowledge into those who will soon be leaders in civics and politics

LEPROSY

Leprosy is no longer a public health menace in the United States, although it is still prevalent in some of its possessions. Yet some of the peculiarities of the disease may throw light on the nature of other infections, especially tuberculosis.

The *Indian Medical Record*, for September, 1926 (published in Calcutta) is a special leprosy number, and is a clear review of all phases of the subject by experts who are constantly dealing with the disease. These men have a large background of experience, for there are 102,000 known lepers in India, or about one in every 3,000 of population. The actual number is probably much greater.

The writers agree that immunity to the disease is not acquired. "It would appear that Europeans are just as liable to acquire leprosy today as ever they were, or as are the natives of endemic countries, the more sanitary and hygienic conditions under which they live alone protecting them from the disease. The healthy human body forms an unsuitable soil for the growth of the lepra bacillus, but the manures and fertilizers which will render it a suitable soil are innumerable. Among them may be mentioned other accompanying diseases, as well as laziness, overwork, irregular habits, insanitary conditions, and any of the countless causes which lower the general resistance of the body."

The bacilli are discharged in great numbers from open sores and inflammatory excretions, yet they cannot be grown in artificial media or in lower animals. "In spite of many attempts, no immunological test, either serological or allergic has yet been developed that can be used practically in diagnosis or prognosis."

"Since study of toxin production by a bacterium is carried on chiefly with culture, little can be said concerning toxins of the leprosy bacillus except in a negative way."

"In spite of the incalculable numbers of bacilli they harbor and the large numbers that are undoubtedly being destroyed all the time, lepers often go for many months and even for years with very little general disturbance. During this time the tissue and vital organs (including the kidneys) as seen in lepers dying of other conditions, show surprisingly little degenerative change."

The groups of tissues usually affected by the bacilli are in their order of frequency 1, the nerves, skin and superficial lymph nodes, 2, the nose, throat and testes, and to a less degree the liver and spleen, and the veins leading away from the skin areas, 3, the lungs, kidneys, and other organs are rarely affected.

"The liver and spleen usually contain bacilli, often in abundance, but these have little effect on the organs structurally or functionally, and they disappear readily as cases improve."

The method of obtaining material for a bacterial examination of suspected tissue is given as follows:

"1 Cleanse thoroughly the area to be examined (with alcohol, or soap and water, or even ether or gasoline), to remove dirt and grease, which in unclean skins often contains acid-fast particles.

"2 Pinch up the skin, to compress. This minimizes bleeding and may prevent any pain (pressure anesthesia).

"3 With a small sharp scalpel or other instrument make a small but real cut (1 to 2 mm deep), to get well into the infiltrated layer.

"4 If blood or lymph exudes, wipe off and discard. The material for examination should be comparatively dry.

"5 With the knife-point *scrape* the bottom (V) and walls of the cut, to obtain actual tissue juice and pulp.

"6 Rub this on a clean slide preferably over a small area. Dry and fix with heat as usual."

As to prognosis, leprosy is often curable, and is self-limited, especially in the young. "Some cases are very mild, and not a few show a marked tendency to subside and undergo natural cure."

The treatment, like that of tuberculosis, consists largely in a hygienic mode of life, and the treatment of associated conditions, such as syphilis. Chaulmoogra oil is an ancient remedy which is used now more than ever before. The theory of its action is that it excites the formation of lipases which dissolve the fatty covering of the bacilli and permit the serum of the body to act directly on the protein of the bacilli.

As to prevention, "The key to the leprosy problem is really 'Save the children.' The little ones are exposed to contagion to an appalling extent. The same cups and spoons, sleeping with leprous parents, constantly in the same room, hugged and kissed by a leprous mother, crawling on the floor of the room where expectoration or the discharge from ulcerated feet may have contaminated the surface, these little ones are indeed in grave peril. Isolation at the earliest possible age of healthy children of lepers is the most important measure of all in the endeavor to stamp out this loathsome pest."

The frequency of white areas on the skin of lepers gives rise to the suspicion that any white area of the skin indicates leprosy. Leucoderma is a rather common condition that is often due to causes unrelated to leprosy, and is amenable to treatment, and often disappears spontaneously. The Biblical form of "leprosy white as snow" in which miracles of healing occurred was probably leucoderma.

Leprosy probably exists in unrecognized forms



MEDICAL PROGRESS



Prevention of Accidents of Spinal Anesthesia by Injections of Cerebrospinal Fluid—Professor Daniel of Bucharest mentions the accidents due to the shock of intraspinal injection which are expressed by many and varied symptoms involving the neurovascular apparatus and especially the vegetative nervous system. This shock may be precocious and manifested by severe untoreseen symptoms, such as cardiac syncope, respiratory syncope, or even death itself, but as a rule its effects are tardy and at times so slightly marked as to be overlooked. There may be pallor of the face, cold sweats, nausea and vomiting, cold extremities, cyanosis, superficial respiration, obstinate frontal headache (usually associated with vertigo and vomiting), disturbance of pulse and temperature, etc., etc. The mechanism of these accidents and the question of prophylaxis have been widely debated but hitherto with but little success. Presumably the accidents occur by preference in those especially predisposed. Among the views which have seemed most plausible is that of Leriche, which attributes much of the untoward happenings to disturbance of tension in the spinal canal. He first injected intravenously distilled water, which was followed in other hands by the substitution of saline or glucose solutions. It occurred to the author to experiment with injections of cerebrospinal fluid, at first subcutaneously. The subject who is to receive spinal anesthesia has 10 to 20 cc of his cerebrospinal fluid withdrawn and at once injected under the skin or into a vein. The author carried out the tests on a hundred patients, in 34 with subcutaneous and in 66 with intravenous injections. While in both cases there were but few accidents from the anesthesia the intravenous route appeared to have a slight but well marked advantage. Thus far no explanation of the mechanism is forthcoming but the author is enthusiastic over his discovery and wishes an extensive trial made at the hands of the surgical profession.—*Bulletin de l'Academie de Medecine*, Oct 5, 1926

Allergic Diseases of Childhood—George A. Campbell presents a study of 77 children with symptoms of protein sensitization. In 57 of these an accurate diagnosis could be made, while in 20 the diagnosis was not made for various reasons. The series included 32 cases of eczema, 12 of asthma, 9 of both eczema and asthma, 16 of chronic upper respiratory infection and a few cases of hay-fever and urticaria. On the basis of his observations in this series he concludes that multiple sensitization to foreign proteins is the rule in allergic children. An allergic heredity

was present in 42 per cent of the cases. Eczema in breast-fed children responds to treatment more readily than in any other group. When due to foodstuffs, eczema tends to disappear spontaneously at two years. Asthma due to foodstuffs is relieved by vomiting. In these cases silk proteins gave more positive reactions than any other protein found in clothing. Desensitization should begin with minute doses (1/1,000,000), otherwise fatal reactions may occur. Hay-fever in children responds well to treatment, if all sensitizing pollens are used. Retests should be made annually to determine the necessity for further treatment. The results of attempts at desensitization in urticaria and cyclic vomiting have been disappointing.—*Canadian Medical Association Journal*, September, 1926, xvi, 9

Alkalosis—Most studies concerning alkalosis as a surgical condition have been focussed on its occurrence in cases of pyloric, duodenal, or high intestinal obstruction, the result of a disturbance in the motor function of the upper gastroenteric tract. Frederick A. Bothe (*Annals of Surgery*, October, 1926, lxxxiv, 4) reports cases following appendectomy, cholecystectomy, perforated necrotic diverticulum, and herniotomy, thus demonstrating that alkalosis may occur as a postoperative complication in conditions not referable to the upper digestive tract. It is important to recognize alkalosis in cases of pyloric and duodenal obstruction before operation, as treatment at that time decreases operative risk. In arriving at a diagnosis of alkalosis one cannot always depend on the clinical picture. Persistent vomiting, evidence of marked dehydration, diminished urinary output, and the presence of uremic and tetanoid tendencies are the findings which would establish the diagnosis clinically. However, the changes in the blood chemistry are more constant and should be studied early in cases of persistent vomiting, so that treatment may be instituted before too great renal damage has occurred. The changes in the blood chemistry are quite constant; there is a decrease in the blood chlorides, a rise in the blood nitrogen, and elevated carbon dioxide combining power. In the preoperative cases immediate surgical intervention is not necessary. Medical treatment, however, is indicated, consisting of repeated gastric lavage to relieve stasis, and physiological saline glucose (10 per cent) to combat the depletion of chlorides and renal insufficiency. In the postoperative cases, alkalosis is more serious, and while the above treatment may be effective in the milder cases, in severe cases 500 cc physiological saline and 500 cc of 10 per cent glucose intravenously

COUNTY MEDICAL SOCIETY NEWS

The County Medical Societies are supplying this JOURNAL with more news of their activities than ever before. Moreover, their activities are of an increasingly varied nature. Two societies, for example, whose meetings are recorded in this issue, report that they are promoting a movement

for County health officer units in their counties. The records in this and preceding issues will furnish the information and inspiration for all other county societies in the State.

Let us set the ideal "A published record from every County Medical Society."

 LOOKING BACKWARD

THIS JOURNAL TWENTY-FIVE YEARS AGO

There is not much that is really new in medicine in these modern days. The doctors a generation ago had plans for unity and cooperation in medical progress. Some observers go so far as to say that the same medical ideas recur in the Medical Journals every five years.

This Journal for November, 1901, records the establishment of a Bureau of Information for the benefit of the members of the State Medical Association, but what the outcome was does not appear. The announcement reads:

"A Bureau of Information—Pursuant of its constant purpose to be of benefit to its members in every proper manner, both professionally and materially, the Council of The New York State Medical Association has decided to establish, at its Editorial and Business Offices, 64 Madison Avenue, Manhattan, New York, a Bureau of Information every facility of which will be at the service of all members of the Association entirely free of expense.

"It will be within the province of this Bureau to furnish the most accurate information obtainable relative to the price and quality of any desired article, whether for medical, surgical or general use. As will be seen, the scope of the Bureau of Information is wide, and applies with equal directness to materia medica, surgical instruments, library, office furnishings, carriages, or house equipment. In short, the Bureau will act as agent, without recompense, for any member of the Association who may desire information relative to commercial products of whatever nature.

"The Council *does not desire, however*, that the Bureau of Information shall act as purchaser, or handle monies in the fulfillment of its functions. It is deemed advisable that all financial transactions shall be between member and seller di-

rect, the Bureau using its knowledge of the well-nigh limitless commercial facilities of Greater New York to secure for members the most satisfactory quotations from the largest and most reliable commercial establishments in their respective lines. No commissions or other remuneration of any character will be accepted by the Bureau for its labors, either from seller or purchaser.

"The Council, in deciding upon the establishment of the Bureau of Information, is guided by commercial rather than philanthropic considerations. It is at once apparent that in no other way can the value of The New York State Journal of Medicine and the Medical Directory of New York, New Jersey and Connecticut be brought so favorably or so forcefully to the attention of the business community as to demonstrate in this practical manner the sustained and widespread interest of the members in their Association or in its publications. The business office of The New York State Journal of Medicine is in a position to carry forward the work of the Bureau of Information in a manner which would be impossible of accomplishment for any medical or other journal published primarily for profit.

"To summarize, the benefits to be derived from the Bureau of Information are mutual. Through it, members may secure accurate data as to new and approved commercial products, together with the best obtainable quotations. At the same time they greatly strengthen the position of The New York State Journal of Medicine and the Medical Directory of New York, New Jersey and Connecticut by demonstrating in the most forceful manner the truly great power of organization as exemplified by The New York State Medical Association."

logical process had been going on for a long time. In two patients with cardiac asthma and pulsus alternans, and in two with cerebral thrombosis, there were marked prodromal symptoms before the angina manifested itself. In seven cases the prodromal symptoms consisted of dyspnea, palpitation, and fatigue on moderate exertion with other signs and symptoms indicating myocardial impairment before the development of angina pectoris. It is therefore probable that the pathological process which eventually produces the symptoms of angina pectoris is a prolonged one and that there is involvement of the aorta and coronary arteries long before anginal symptoms develop. These facts serve to emphasize the importance, in the prevention of angina pectoris, of giving careful attention to premonitory symptoms such as those mentioned above.

Some Points in the Prognosis of Auricular Fibrillation—H. Wallace Jones (*Lancet*, Sept 25, 1926, ccl, 5378) affirms that it is impossible to overemphasize the importance of auricular fibrillation in disease of the heart, since more than one-half of the patients dying of heart failure show this abnormal rhythm at some time or other before death. The dominant factor in the prognosis is the condition of the heart muscle. If the patient is quite unaware that the change from the normal to the abnormal rhythm has taken place, it shows, as a rule, that the heart muscle is fairly good, and is a much more favorable sign than if the change had been accompanied by severe distress and evidence of sudden heart failure. In one type of auricular fibrillation, not accompanied by marked distress, however, the outlook is unsatisfactory—the type in which the heart rate remains persistently low. In this type there is usually marked myocardial damage. Factors indicating an unfavorable prognosis are limitation of response to effort, cardiac enlargement, valvular disease, and failure of the fibrillation to respond to digitalis. Quinine sulphate, when it reestablishes the normal rhythm, improves the outlook considerably, though the tendency of the heart muscle is to revert to fibrillation. From a comparison of the two main groups of fibrillation, the rheumatic type and the senile type, Jones concludes that auricular fibrillation is of more serious significance in senile than in rheumatic heart disease. In cases of mitral stenosis the presence of fibrillation makes little difference in the expectation of life. In aortic regurgitation the expectation is better when fibrillation is present than with a normal rhythm. The prognosis is more favorable with aortic regurgitation than with mitral stenosis. With marked cardiac enlargement the outlook is more grave. The expectation of life is longer

in females than in males. The electrocardiographic appearances in auricular fibrillation are of two types, the coarse type and the fine type. The average expectation of life for typical examples in these two types is about the same. The presence of a bizarre Q R S complex is of most significance in the prognosis.

The Communicability of Rheumatic Disease—In a review of the literature, Abram Joseph Abelloff and Irwin Philip Sobel (*Archives of Pediatrics*, September, 1926, cliii, 9) find many instances in which two or more cases of rheumatic fever have occurred in a single house. To this they add data obtained from reports by chiefs of heart clinics in various cities in the United States in reply to an inquiry undertaken by Dr. Haven Emerson. Information was sought as to the family history of patients (Group A) who presented manifestations of rheumatic infection (chorea, acute rheumatic fever, or rheumatic cardiac disease), and patients (Group B) who came to the general outpatient services with conditions other than those due to rheumatic infection. The data collected concerned 241 patients—139 in Group A, and 102, in Group B, serving as controls. In the latter group of families with no presenting case of rheumatic infection only 14.7 per cent had one or more members afflicted with the disease, while in the members of the families of Group A the incidence of rheumatic disease was almost twice as great. Adding these figures to those of other investigators it was found that of 1,031 families with an original case of rheumatic infection, 47.5, or 46 per cent had one or more additional cases, while in only 13.2, or 19.4 per cent, of 677 families with no presenting case of rheumatic infection, was any case of rheumatic disease discovered. Although the high incidence of rheumatic disease in certain families may in some measure be due to hereditary or environmental influences, the figures are nevertheless so striking that the possibility of the direct communicability of the disease must be seriously considered. They indicate the importance of carefully examining other members of the family for manifestations of rheumatic infection where one member is afflicted with the disease. They also suggest that precautions should be taken that at least the more intimate forms of contact with others in the family be avoided.

A Clinical Type of Cholelithiasis Resembling Renal Disease—Rupert S. Corbett and Carleton B. Pierce (*Surgery, Gynecology and Obstetrics*, October, 1926, cliii, 4) reports two cases in which the clinical picture was suggestive of renal disease, but which, after complete examination, proved to be cases of cholelithiasis. In one case there was blood in the urine

should be administered two or three times daily. The blood chemistry should be checked while intravenous therapy is being used.

Etiology, Diagnosis, and Treatment of Chronic Indigestion—John M. Flude, writing in the *Therapeutic Gazette*, September 15, 1926, 1, 9, states that chronic indigestion may be caused by intragastric or extragastric conditions, the extragastric causes being the most common. The etiology of most chronic digestive disorders may be explained by two factors: first, ptosis, and second, bacterial infection. The symptomatology is rather confusing. Keith mentions that most of the symptoms are due to ptosis alone, and this may well be, as it is the prime factor in their production. He classifies the symptoms as circulatory, gastric, nervous, and intestinal, especially constipation. The writer is inclined to think the symptoms are produced chiefly by interference with the proper blood supply. Relief of the symptoms when one assumes the horizontal posture is a quite common occurrence. Infection of the upper gastroenteric tract quite frequently occurs as the result of the repeated swallowing of infected material from the nose, throat, mouth, and bronchial tubes. Ascending infection by the colon bacilli is too well known to require discussion. Careful x-ray examination is vitally necessary for evidence of intragastric pathology and of the reflex disturbances of the stomach arising from secondary infection of the duodenum and galltract. Treatment consists in the removal of all foci of infection when possible. Abdominal support is vitally necessary for the successful relief of ptosis. Duodenal drainage of an inflamed or infected duodenum and galltract, and autogenous vaccines are valuable aids in eradicating infection.

Relationship Between Gastric Ulcer and Carcinoma of the Stomach—John S. Lawrence and A. V. Bock, in an attempt to compare the clinical findings in these two conditions, present a study of 98 cases of carcinoma of the stomach and 48 cases of ulcer of the stomach. The majority of the cases were confirmed by operation, and an appreciable number were further confirmed by pathological examination. The principal points brought out are as follows. In the majority of cases of ulcer of the stomach the initial symptoms occurred about twenty years earlier than in the majority of persons with gastric malignancy. The average duration of symptoms prior to entry into the hospital was approximately eight years for 40 of the 48 cases of gastric ulcer. In the 96 cases of carcinoma the average duration of symptoms was approximately two and a half years. There were 11 cases (11.3 per cent) of gastric malignancy in which the duration of symptoms was five years or over. On the basis of duration of symptoms alone, it would ap-

pear that 10 per cent would be a high value for the incidence of carcinoma in ulcer of the stomach. There is no real difference in the two conditions so far as sex is concerned. Slightly over one-half of 29 cases of ulcer (58.6 per cent) in which a statement concerning appetite was made, had such recorded as "good or better," as against one-fourth (26.7 per cent) of the cases of carcinoma. There is a more rapid loss of weight in gastric malignancy than in gastric ulcer. Gastric analysis showed free hydrochloric acid absent in the fasting contents in approximately one-third (30 per cent) of the ulcers as against nine-tenths (87.7 per cent) of the cancer cases. Only one-tenth of the cases of gastric ulcer showed absence of free hydrochloric acid in the contents removed after a test meal, as compared with about three-fourths (70.8 per cent) of the cases of gastric malignancy. Occult blood in the feces was found about three times as often in the feces of patients with carcinoma of the stomach as in patients with ulcer. There was no difference of note in the two series of cases as regards red blood cells or hemoglobin. The outstanding physical finding differentiating these conditions was found to be the presence or absence of a palpable abdominal mass. Over 52 per cent of cases with carcinoma had a palpable mass, whereas only one case of gastric ulcer gave this finding. The most common initial symptom in both series of cases was epigastric pain. Any adult with unexplained gas on the stomach, heartburn, or constipation, should have a roentgenological examination. These observations seem to indicate that there is not a very close relationship between the two conditions.—*Boston Medical and Surgical Journal*, September 30, 1926, cxcv, 14.

Prodromal Symptoms in Angina Pectoris—Morris H. Kahn (*American Journal of the Medical Sciences*, September, 1926, clxxii, 3) has analyzed a group of 82 cases of angina pectoris, of which 25 (30 per cent) presented prodromal symptoms. There were 10 cases with substernal burning sensation or attacks of pressing pain or burning sensation in the epigastrium. In a few the symptoms of burning manubrial pain and epigastric distress were combined. In 4 cases, or nearly 4 per cent, typical attacks of angina were preceded by symptoms which were not characteristic of angina. In these cases the first attack noted by the patients indicated some sudden cardiac change and consisted of sudden weakness, faintness, darkness before the eyes, or falling to the ground without loss of consciousness and without any chest pain. In subsequent attacks pain became the dominating feature. In one case the non-typical attack occurred eight years before the angina. In the interval there was continued substernal burning pain with dyspnea after moderate exertion, indicating that a patho-



LEGAL



By LLOYD PAUL STRYKER, Esq
Counsel, Medical Society of the State of New York

TONSILLECTOMY—HEMORRHAGE

This action was brought to recover damages for alleged negligence in the performance of a tonsillectomy. It was charged that the defendant physician failed to make a preliminary examination and operated upon the right tonsil in such a manner as to remove a large portion of the flesh and sever an artery and failed to take the proper steps to control the hemorrhage, which resulted in an infection of the plaintiff's throat. The plaintiff further claimed that he was unconscious for a period of several hours and lost a great quantity of blood, that by reason of the loss of the blood he became constitutionally weakened and in a nervous condition and for a period of time after the operation was unable to consume any but liquid foods. He claimed that he was unable to follow his occupation of a salesman for a period of four months and that after the operation he was compelled to engage the services of other physicians to remedy the injury caused by the defendant.

This patient had called on the defendant on January 8th. He was of a nervous type and asked that the physician be kind to him. After a thorough examination arrangements were made with the patient for the performance of a tonsillectomy, the same to be done at the physician's office on January 15th. The operation was performed, the tonsils being removed by the snare method. Upon completion of the operation the patient was put into the rest room. About half an hour thereafter the physician found that the patient had a mouthful of blood. He then brought the patient into the operating room, but upon examination found no bleeding point. The blood, however, seemed to have come from the right side of the throat, but the point from which it came could not be determined by the physician. A sponge was placed at the right side of the throat, the bleeding stopped and the throat became dry. About fifteen minutes later the patient had another mouthful of blood. It seemed to the physician that the patient vomited the blood, his throat showing no bleeding point.

The physician then called a colleague in consultation, who examined the throat and found it dry. His colleague was about to pack the throat and leave when he was requested by the defendant physician to remain. The consultant, upon examination, found no open vessels, no ragged tissue and no bleeding and that

the operation was complete. When the consultant was about to leave there was another gush of blood from the patient. The consultant then cleaned out the cavity, but was unable to find any bleeding point. A sponge was then sewed between the anterior and posterior pillars on the right side. Hemostatic serum was injected and the cavities were painted. The patient was then returned to bed, but in about ten minutes there was another gush of blood and the sponge was ejected from the mouth.

The patient having been weakened by the loss of blood, it was decided by the defendant physician and the consultant that the patient had better be sent to a hospital. An ambulance was then called and the patient removed to a hospital. That evening the defendant physician called at the hospital and was advised that the patient was doing well and that there had been no bleeding since his entry into the hospital. On the following day he again visited the patient at the hospital, who at that time was in a wheel chair, and he advised the defendant that he felt comfortable but complained of soreness in the throat, particularly on the right side. The defendant also visited him at the hospital on the third day, January 18th, and the patient was discharged on the following day.

At the hospital the physician had requested the patient, upon his discharge, to call on him at his office which he did upon his release from the hospital. Upon examination no bleeding was found, but the normal amount of reaction and tenderness from the operation were found. The defendant again saw the patient on January 25th and found the throat to be healing, there being no bleeding and no sloughing of the tissues. This was the last time the patient was seen by the physician.

The action remained on the calendar for some time and when it had reached a position to be tried, the plaintiff not being ready to proceed, on motion of the defendant physician the complaint was dismissed and a judgment of dismissal was entered. Thereafter the plaintiff appealed to the Appellate Court from the order dismissing the complaint. This appeal was not perfected and a motion was then made to dismiss the appeal for lack of prosecution of the same, which motion was granted, finally terminating the action in favor of the physician.

and frequency with burning and smarting. Specimens obtained by ureteral catheterization showed red blood cells, white blood cells, epithelial cells, and a few colonies of staphylococci. The administration of tetra-iodophenolphthalein and r-ray examination revealed shadows resembling those of gallstones, and at operation four stones were found in the gall-bladder. Following the operation the urinary condition cleared up. The second case was quite similar though the hematuria occurred only at intervals and no red blood cells were found in the specimens examined. Based on the r-ray examination a diagnosis was made of cholecystitis and cholelithiasis. After operation the urine no longer showed abnormal constituents. These cases were associated with large gallstone formation, a moderate degree of change in the gall-bladder wall, and a fair shadow of the viscus after the administration of tetra-iodophenolphthalein. The last-named finding is indicative of normal liver function, patency of the cystic duct, and good power of bile concentration by the mucosa, according to the standard of Graham and Cole. These facts are difficult to reconcile with the accepted view of the etiology of gallstones. They tend to the view of a chemical rather than an infectious basis for gallstone formation. The gallstones might then be considered to be a cause rather than an effect of the cholecystitis.

The Rectal Administration of Epinephrine—William C Meninger and Harlan S Heim (*American Journal of the Medical Sciences*, September, 1926, clvii, 3) call attention to the fact that comparatively few studies of the effect of epinephrine given by mouth or rectum have been made. They have made 31 observations of the results of rectal administration of the drug. In 64 per cent of these there was a blood pressure rise of over 10 mm, and in 50 per cent a rise of over 20 mm of mercury. The maximum effect was reached in an average time of 40 minutes after administration. The duration of the blood pressure rise was 45 minutes longer. The pulse was slightly decreased or remained constant in 18 cases while it was increased in 13 cases. Other systemic or local effects most frequently observed were tenesmus, desire to urinate, abdominal cramps, sweating, epigastric distress, and relief of respiratory difficulty in asthmatic cases. It was found that the rectal absorption of epinephrine in relatively large doses is unreliable, but in the positive cases the systemic effect, while slower in reaching a maximum, persisted over a much longer time than when the drug was given hypodermically. The rectal method of administration should be of advantage in cases requiring a prolonged effect and repeated doses of epinephrine, as in asthma or Addison's disease.

Röntgen Diagnosis of Syphilis—Dr Carlos Heuser of Buenos Ayres announces the discovery of a new radiologic sign of syphilis—the presence of exostoses on the bones of the pelvis where they are not susceptible to palpation. In a number of cases the picture was symmetrical and typical. Since no other disease is able to produce lesions of this type the sign is pathognomonic. The exostoses are naturally a chance find or at least were so at the outset as in the case of a woman who was radiographed for appendicitis. The site of the lesions is anywhere in the pelvic girdle—the pubis, ischiopubis, iliac bones and crests. The cases occurred most commonly in the age period 20 to 50, but the author has also encountered the lesions in children and old people. In those who are above 55 care must be taken in excluding calcifications and ossifications at the muscular insertions, which are physiological. Other locations of these exostoses brought out in roentgenograms are in the region of the atlas, axis, and occipitovertebral articulation. The patients who presented the lesions gave a positive Wassermann. The diseases for which the roentgenograms were originally made show some strange coincidences, for no less than 20 presented gastric ulcer while 9 others were prostatics.—*Revista de la Sociedad de Medicina Interna*, July, 1926.

Pyemia of Tonsillar Origin—Uffenorde contributes an article on post-anginous pyemia in the *Deutsche medizinische Wochenschrift* for September 24, 1926, which appears to be taken from his monograph on the same subject, probably as yet unpublished, as no reference is given. This work comprises all cases recorded to date in the world literature. In recent years, the author states, there have been many cases reported of all sorts of systemic infection from both acute and chronic tonsillitis—lymphatic, toxic, septic, pyemic, and metastatic. At the Hamburg-Eppendorf Hospital 15 cases of pyemia have been recorded in the past 7 years. Fraenkel reported 6 cases in which the jugular vein was ligated. Melchior and Ries quote 4 recovered cases of the severe metastatic type. It is not the tonsil itself which seems to be concerned in the pyemic type but a peritonsillar phlegmon, which explains why the author prefers the term anginous to tonsillar. He states in passing that our knowledge of the local pathology in these conditions is defective. Regarding treatment a question of importance refers to ligation of the external jugular vein to avert some of the dangers of pyemia. In the cases cited by Fraenkel, however, death resulted sooner or later despite ligation, nevertheless, since pyemia is due to local phlebitis, ligation is indicated in theory if done early enough. Some of these cases seem to have terminated in thrombosis of the intracranial sinuses.

involved and the opening not widened. No attempt was made to close the incision, which was packed, Dakin's solution also being used.

The condition of the patient not improving and she growing more irritable and permitting no one but the defendant physician to dress the wounds, which he had to do at times under an anaesthesia, on April 25th, under a gas-ether anaesthesia, a second exploratory operation was performed. At this time the old Killian incision was laid open and the edges of bone trimmed up. The dura was felt along right cribriform plate but the granulations on the dura were not disturbed. Incision was extended up to median line of the forehead and the bone over the frontal area exposed. Two holes were drilled through the cortex and connected until fair sized openings were made about one inch by one-half inch. The pressure on the dura was noted and on incising the dura brain material herniated through. A blunt needle was used to make the exploration. A lack of natural resistance was noted with masserated brain tissue encountered. Although the exploration was carried out in several directions, no pus was found, or at least could not be drawn out into a syringe. The curved separator seemingly by its own weight was carried into what seemed to be a cavity, probably at a depth of about two inches. A culture was taken of the existing material which very much resembled pus, but no suitable amount could be drawn into the syringe. A two-inch drainage tube was inserted and stitched in place by sutures through the periosteum. The ethmoid and frontal area was packed with gauze and dressings applied. After this operation the patient still continued to be intractable, at times being morose and at other times hilarious and boisterous. She refused to permit the nurses and internes to attend her and would not obey their orders or instructions and interfered with the dressings of the operative wounds. She was seen daily by the defendant physician, who personally did the dressings. Her condition growing gradually worse, the superintendent of the hospital advised that she could no longer be kept there as a patient and on May 27th she was removed, in a delirious condition, to another hospital. At the second hospital she was confined to the psychopathic ward for about a week and then

moved to another ward. On July 7th a spinal fluid was taken which showed the presence of staphylococcus aureus. She was also suffering from a bilateral choked disc. On this date she was examined by the neurologist at the hospital, who advised perimetry and attention to scotoma and if found to be negative he then advised ventriculography. This neurologist made a diagnosis of probable frontal abscess. On July 10th a perimetry was taken and the chart showed normal fields and no enlargements of blind spots and no scotoma. Two other attending physicians at this hospital examined her and advised a ventriculography, which was done on July 13th. The ventricle entered at first puncture 27 cc. of fluid was removed and 35 cc of air injected, with negative findings. At about 10 30 P M of July 13th a consultation was held and it was decided that respiratory failure, which had set in, was due to the pressure of medulla. She was then operated upon and an incision made over the frontal region at outer angle of the prior incision made for ventriculography down to the superciliary cover and flap dissected over the hernia which resulted from the prior frontal exploration. The frontal bones were removed, the dura was opened, the right frontal lobe was found bulging. No exploration of the brain was made, the dura was not sutured. Drains were inserted, although no definite pus was seen. No anaesthesia was used as none was necessary, the patient being in a coma. She died at about 6 30 in the evening of the day following this operation. The parents refusing, no autopsy was performed and the cause of death as given on the death certificate was "Abscess of brain with contributory cause of pulmonary edema."

When this action finally came on for trial the plaintiff, in an attempt to support the complaint, called as witnesses several of the physicians who had attended the patient at the first hospital and who had assisted the defendant in his operation and treatment of the patient. The testimony of these physicians, however, did not establish the plaintiff's cause of action but substantiated the defendant's treatment and at the close of the plaintiff's case, on motion on behalf of the defendant, the plaintiff, not being able to establish her cause of action, the complaint was dismissed.

CLAIMED BURN FROM THERAPEUTIC LAMP

Here the patient claimed he was suffering from a tightening of the muscles and a stiffening of the joints of the left leg and foot and after consulting the defendant physician was advised to undergo a baking process of said leg and foot, that the physician undertook to render such treatment for the purpose of relieving the condition of which the patient complained, that in his treat-

ment the defendant was negligent, careless and unskillful and allowed the plaintiff's limb to remain in the baking apparatus for too long a time and furnished too great an amount of heat to the apparatus, causing the patient's left leg and foot to be burned through the skin, that by reason of the burn the skin dried up and came off, that the leg and foot became infected and that the patient

SINUSITIS—BRAIN ABSCESS

An administratrix sued a physician to recover for the death of her decedent, which she charged was due to the negligent and careless treatment of the defendant. In her complaint she alleged that on February 16th the decedent consulted the defendant physician, who had held himself out as a specialist in the treatment of eye, ear, nose and throat conditions, in an effort to be cured of a minor ailment and occasional headaches, that by reason of the improper treatment of the physician, the bones and tissues of the decedent's skull became diseased and infected and suppuration and decay were occasioned thereby, that her physical and mental health were impaired and that she died by reason thereof. It was further charged that he neglected properly to care for the decedent subsequent to the performance of an operation on February 16th, that he ordered her to be discharged from the hospital on February 21st with a quantity of gauze packing remaining in her nostril extending upward and into the frontal sinus, that thereafter and until March 30th he was negligent and careless in his examination of the decedent and failed to discover the presence of the gauze packing in the nostril and did not remove the same until the latter date. The decedent was about nineteen years of age at the time of her death and, it was claimed, in good health and possession of all her faculties and engaged as an office clerk prior to the operation performed on February 16th.

This patient had been referred to the defendant by the family physician with the complaint of constant headaches and a chronic nasal discharge. A tentative diagnosis was made of congestion of the sinuses. On February 16th she entered a hospital as a ward patient. X-rays were taken and an interpretation made of chronic ethmoiditis of the right side. The patient also had a deflected nasal septum on the right side. On the latter date there was performed a submucous resection of the nasal septum and an extirpation of the right ethmoid, scraping out the cells, dead bone and the diseased tissue, together with the suppurative process. This operation was done under a general anaesthesia. There was no excessive bleeding and no packing of any kind was used during or after the operation. The operation was performed between two and four o'clock in the afternoon and the patient was returned to bed in good condition. The defendant physician did not see the patient again until the following morning. From the nurses' bedside notes it appeared that at about six o'clock in the afternoon the patient was still in good condition and conscious. On the hospital report there appeared a notation that there was considerable bleeding the first of the evening, the right eye was swollen and discol-

ored, which condition existed on the following morning, February 17th. There was also a nurse's note on the record that at 9 30 A. M. February 17th, a plug was removed from the throat by the house surgeon. On his arrival at the hospital on the morning after the operation the defendant physician was told that during the preceding evening the patient had suffered from a secondary hemorrhage and packing was resorted to and that the packing had been removed. The decedent was an intractable patient while at the hospital, interfered with the dressings, was continually creating a disturbance and refusing to permit the nurses to attend to her. Until her discharge on February 21st she was seen daily at the hospital by the defendant. After this date she was an ambulatory patient and was seen by the defendant at the clinic. From time to time, for a period of about five weeks, her nose was irrigated with a solution of argyrol and water. She complained that the operation had not helped her and that she still suffered from the headaches and the nasal discharge. On March 30th, while the defendant was examining the decedent, he observed two or three threads protruding from the right side of the nose and with nasal forceps he removed a piece of gauze about four inches long. The nasal cavity was then washed with a saline solution and the patient instructed to return within a few days. Later, accompanied by her parents, she was seen by the defendant at his office. At this time she appeared sullen and morose. Upon examination her pulse was found slow and the condition indicated that there might be an intracranial abscess, which fact was communicated to the parents and it was recommended that she re-enter the hospital.

On April 18th she again became a bed patient at the hospital and a radiographic examination made at this time disclosed that the frontals were small and showed moderately severe involvement, the ethmoids showed moderately severe involvement and both antra showed moderately severe involvement. The defendant then consulted four of his colleagues at the hospital, after which consultation it was decided to explore the brain in an endeavor to determine the cause of the patient's condition, the procedure being consented to by the parents. On April 20th, under a general anaesthesia, the defendant, assisted by two other surgeons, performed a Kilian operation—right frontal sinus, for possible meningitis and brain abscess. On this operation frontal was found not to be involved, the ethmoids were found exenterated, with dural exposure where the cribriform plate formerly was and granulations found to cover the dura. The bridge was removed to provide drainage and the exposure widened slightly. The sphenoid was found un-

NEWS NOTES

SUFFOLK COUNTY MEDICAL SOCIETY

The Annual Meeting of the Suffolk County Medical Society was held on Thursday, October 28, 1926, in the Griffin House, Riverhead, with President J S Ames presiding and Dr Frank Overton recording.

The report of the nominating committee was unanimously adopted and the following officers were elected for the coming year:

President, Dr Frank Overton, Patchogue, Vice-President, Dr Frank S Child, Port Jefferson, Secretary, Dr E P Kolb, Holtsville, Treasurer, Dr David H Hallock, Southampton, Censors Dr George H Schenck, Southampton, Dr Paul Nugent, East Hampton, Dr W A Baker, Islip, Delegates to the State Society Dr W H Ross, Brentwood, Dr Guy H Turrell, Smithtown Branch, Alternates Dr J S Ames, Babylon, Dr Frank Overton, Patchogue.

The following physicians were reported favorably by the censors and elected to membership:

Dr Theodore Gallup, Smithtown Branch, Cornell, 1923, proposed by Drs Guy H Turrell and W H Ross, Dr Charles C Low, Bellport, University of Buffalo, 1896, proposed by Drs S R Corwith and Frank Overton.

Dr W H Ross, Chairman of the Legislative Committee, reported that the Practice of Medicine Act had passed the Legislature through the influence of laymen who acted largely through the solicitation of the Tuberculosis and Public Health Association, Inc. He said that so long as only the doctors advocated the bill, the Legislators were under the impression that they were acting from selfish motives, but that when about seventy-five laymen from the county urged the passage of the bill, the Legislators supported it. Dr Ross also told how the Act is now in successful operation.

Dr Guy H Turrell, Editor of *The News Letter*, reported on the action of the Comitia Minora in making *The News Letter* the organ of all public health agencies in the County, as well as the County Medical Society. The Comitia Minora, acting on the authorization of the County Society given at the Semi-Annual Meeting on May 18, had accepted the offer of the Tuberculosis and Public Health Association, Inc., to finance the issue of a larger number of copies, and that now *The News Letter* was sent to 800 persons, with the expectation that it would soon be sent to about 2,000. The County Medical Society continued to pay \$25 each month toward its support, and the Tuberculosis and Public Health

Association, Inc., was paying about \$40 for the additional copies. The total cost of 2,000 copies would be \$105 each month.

Dr Overton reported on the matter of Periodic Examinations, in the absence of Dr Williams, Chairman of the special committee appointed by the Comitia Minora. He said that 300 blanks had been obtained from the American Medical Association, and he exhibited the blanks to the members and explained that the Committee would send two blanks to each member with the request that he go to a brother physician and undergo an examination himself in order to demonstrate to the public the sincerity of the doctors in advocating the examinations.

The Secretary described the action of the Comitia Minora in advocating an educational campaign in *The News Letter* for the purpose of educating the people regarding the necessity of a better observance of the regulations regarding scoring dairies and issuing permits by the health officer. He reported that the South Side Hospital and the Southampton Hospital had equipped their laboratories with the means for making bacterial counts of milk, and that the Greenport Hospital was also taking steps in the same line.

On motion the following resolution was unanimously adopted:

Resolved, that this Society

1 Endorse and approve the articles on milk published in *The News Letter*,

2 Urge health officers and boards of health to utilize the means for making milk counts regularly,

3 Urge the appointment of a full-time milk inspector by the Board of Supervisors in order to unify and amplify the work of the health officers.

Dr W H Ross presented the following argument in favor of a county health officer:

For the better organization of the means of promoting health and preventing disease in Suffolk County, advantage should be taken of the permissive law, in existence since 1921, authorizing the Board of Supervisors to establish a county health unit under a full time health officer. Under the law of 1925 the county can have state aid to the amount of one half of its appropriations for health purposes.

The method now in use—of township and village health units—produces relatively evanescent results. A county health unit, under direction of a well trained and competent full time health officer, would make possible much wider and

suffered intense shock and pain, was unable to sleep or to work and his health was generally undermined, that he also sustained numerous scars where the leg and foot were burned and the places where the same were burned have remained tender and susceptible to pain under pressure, that he had been required to spend moneys to relieve the injury and had been prevented from following his usual occupation of a truckman

Prior to his call on the defendant the patient had been receiving treatment at a hospital for a secondary phlebitis of the left leg. The physician decided to administer light treatment to the plaintiff to relieve the condition of which he complained. He then exposed the leg to the light, placing the lamp twelve inches above the leg and using a 2,000 Watt bulb, which was covered with a cone-shaped shade. The parts of the body not exposed to the light were protected by towels. The light application was given for ten minutes. Upon turning off the light the physician found a mild erythema on the spot that had been exposed,

which he properly treated at that time. The patient did not again call upon him and no further treatment was rendered by the physician. He passed into the care of other physicians. The irritation of the skin subsequently blistered, broke down and ulcerated, but after a period of treatment it entirely cleared up.

The plaintiff sought in this action to charge this physician with the injury which he claimed to have sustained. At the time of the rendition of the treatment the patient was lying on the table with his face down. During the course of the trial the plaintiff gave testimony in his own behalf as to the distance the lamp was from his leg and the length of time the leg was exposed to the light. On cross-examination, when it was developed that he was lying in a position in which it was physically impossible to see the lamp or know how long the leg was exposed to the lamp, his story was entirely discredited and at the close of the plaintiff's case the complaint was dismissed for failure of proof upon his part.

HYPODERMIC INJECTION—BROKEN NEEDLE

In this case it was charged that the defendant physician negligently and carelessly injected a hypodermic needle into the plaintiff's arm and unnecessarily caused her to be drugged and brought under the influence of drugs, caused a hypodermic needle to be broken while in the plaintiff's arm and failed to remove the broken needle.

On September 20th at about 5 P. M., the plaintiff, a girl about eighteen years of age, was brought to the office of the defendant physician and he was requested to give her something to quiet her nerves. On examination the physician found her to be a healthy girl except that she was nervous and he prescribed bromide. The plaintiff was taken to the home of a girl friend and within about an hour, before she had taken any of the bromide, she became hysterical and the defendant physician was again called. At this time he found the patient kicking and screaming and

crying and he was requested to give her something to quiet her. He had with him a syringe containing morphine. He then sterilized the needle in boiling water, washed the girl's arm with alcohol and, while holding her forearm with his left hand, inserted the needle in the muscles of the upper arm. Just as the needle entered, the girl suddenly raised her arm, causing the needle to break. The physician then told the people who were with the girl of the breaking of the needle and advised them to take the girl to a surgeon so that steps could be taken for the removal of the needle, as he felt that this was a case for a surgeon. Shortly thereafter this malpractice case was brought against him charging him with negligence in the breaking of the needle.

The action came on for trial, and the plaintiff being unable to establish a cause of action, the complaint was dismissed.

favor of the defendant, you never know where the lightning is going to strike next. The rate is low but the satisfaction in the feeling of protection cannot be expressed in dollars and cents. There should not be one physician in this society unprotected in this matter.

At this time another most important step in preventive medicine is being sponsored by this society. We have already done a vast amount of work in the campaign for pure milk and our investigations so far have revealed conditions that account for many of our cases of so called summer complaint. The work we are doing and the results we hope for will play just as important a part in preventive medicine as health examinations and immunizations.

"Suffolk County has led the state in its work in tuberculosis and the publishing of its news to the profession and laity. With everyone doing his share this society should become the example for every other society in the state."

D. Walter Truslow, of Brooklyn, gave an address on Flat Feet, and illustrated his remarks

with a clinic of three cases supplied by Dr. Terrell and Miss Minnie Ashton, School Health Teacher of Riverhead. Dr. Truslow will write out his remarks in the form of an illustrated article, reprints of which will be available to the members of the society.

Mr. Eric Larsen, Welfare Agent for the Long Island Lighting Company, demonstrated a portable inhaler used by the Company in order to give oxygen containing five per cent of carbonic acid. The carbonic acid is a powerful respiratory stimulant and of great value in carbon monoxide poisoning, not only in severe cases, but also in mild cases in which headache and nausea are the prominent symptoms. (The use of carbonic acid in oxygen was described in an article by Dr. Henderson in the *Journal of the A. M. A.* for September 6, 1924, page 758.)

The members and their guests dined together in the Griffin House. After lunch, group pictures and movies of the physicians were taken by Dr. Overton.

TOMPKINS COUNTY MEDICAL SOCIETY

The October meeting of the Tompkins County Medical Society was held Tuesday evening the 26th, in the Chamber of Commerce parlors, Ithaca, N. Y., with about 60 members and visitors present.

The minutes of the September meeting were approved as read. The Secretary, reporting for the Comitia Minora, read the minutes of its last two meetings.

It was moved, seconded and carried that the plan for medical relief in case of disaster, as presented by the A. M. A., be and is hereby approved as recommended by the Comitia Minora, and that if the plan is finally adopted, our By-Laws be amended to conform thereto in regard to the duties of the President.

The application of Frederic C. Robbins of the Medical Advisory Staff of Cornell University, for Associate Membership was presented. It having been approved by the Board of Censors he was duly elected.

President Larkin then stated that the special subject of the meeting was to consider and discuss the advisability and feasibility of establishing a General Health District (usually termed a County Health Unit) in, of and for Tompkins County, and invited Dr. Luzerne Coville to take the Chair.

Dr. Coville introduced Dr. A. C. Burnham, Assistant in preventive medicine of the State Charities Aid Association, who gave a rather detailed outline of the subject and stated there are

now more than 300 such county health centers in operation in the United States, resulting in better coordination in the work in the different health divisions of the county when working under one directing head, the County Health Officer, who works under the general advice of the County Health Board.

Dr. Coville then introduced Dr. R. E. Plunkett of the State Department of Health who said that Dr. Matthias Nicoll, State Commissioner of Health, is thoroughly in favor of the establishment of county health units, and explained in detail the methods of organization and operation of such units, and showed that the State duplicated any county appropriations for that purpose.

Dr. Livingston Farrand, President of Cornell University, was then introduced and gave a general discussion of the subject. Dr. Farrand has had a long experience in public health movements, and stressed the point that the trend of the times, as shown in medical education and thought, is more and more toward preventive medicine. The people themselves are beginning to demand it, and the County Medical Societies should be the leaders in such matters. The physician has a false idea that his practice and income would be materially reduced thereby, but the fact is that both are increased. Dr. Farrand thoroughly favors the idea of a County Health Unit for Tompkins County, and showed how the county is favorably situated for successfully carrying out such a project.

more effectual health work. The unit of administration in a township is too small for efficiency and team work. Any sanitary or disease control, or food regulation must be county wide to obtain measurable and permanent results.

Growing experience in public health work in the county leads to the conclusion that little or no further real advance or likelihood of a permanent uplift in the promotion of health and prevention of disease will occur, unless there is a better administrative organization. The only method in sight that will do this is a county board of health. This will not do away with township health boards, but will provide organization and methods to increase their efficiency.

There is only one possible argument against this, and that is cost. It will increase expense, probably as much as ten cents per capita per year. The people of the county are quite likely to be willing to spend this amount for better health, since they are now standing the expense of a good deal of preventable sickness.

On motion of Dr. Ross, the following resolution was unanimously adopted:

"Resolved, that the Suffolk County Medical Society go on record as favoring the establishment of a county board of health unit under a full-time health officer."

After the adoption of the favoring resolution, the society voted to instruct the Comitia Minora, the executive committee of the society, to take all proper steps to bring the desirability of this county unit to the attention of the voters and of the Board of Supervisors.

Dr. Frank Overton read the following proposal:

"We wish to propose that the Suffolk County Medical Society consider Graduate Medical Education modeled somewhat after a correspondence course, according to the following plan:

"1. The County Society is to adopt the plan and provide the funds for the preliminary financing, and appoint a committee of four to have the plan in charge.

"2. A subject is to be chosen—the heart, for example—and an outline or syllabus would be developed in consultation with an expert teacher from Kings County or other available source.

"The books or pamphlets would be named for study.

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"The object of the proposed correspondence and lecture courses is to bring the means of graduate study to individual doctors in distinction from groups."

Dr. Alec N. Thomson, Secretary of the Public Health Committee of Kings County Medical Society, explained the plan of a correspondence course in considerable detail, and offered the assistance of the Kings County Medical Society in putting it into operation.

On motion the project of a correspondence course as outlined by Drs. Overton and Thomson was unanimously approved, and the President was instructed to appoint a committee to put it into operation.

Dr. J. S. Ames gave the annual presidential address in which he said:

"It is not boasting for me to say that the past year has been a successful one for the society, the regular machinery has worked on as usual and some innovations introduced which will, I believe, work for the betterment not only of the society but of the county at large.

"In the first place *The News Letter* has been expanded so that it now represents not only the medical society but the tuberculosis and public health societies as well. This results in giving us all the news of these societies. But of more importance the mailing list has been greatly increased so that the letter reaches county and town officials and prominent people in every village. This will give people a much broader idea of what we are doing for them in our hospitals and societies. The general public is taking more interest than ever in medical topics and a sheet of this kind will give them more accurate information than they can otherwise obtain. I do not know how the press in other villages treat their physicians, but if the residents of a certain village believe all they read in its newspaper, there would not be much respect for the medical profession.

"A most important thing is being neglected by many physicians in this county as well as throughout the state, and that is taking out insurance against suits for malpractice. In your reading of journals and daily papers you cannot help noticing the increase of these cases in the courts, and although the majority of the verdicts are in

favor of the defendant, you never know where the lightning is going to strike next. The rate is low but the satisfaction in the feeling of protection cannot be expressed in dollars and cents. There should not be one physician in this society unprotected in this matter.

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"The object of the proposed correspondence and lecture courses is to bring the means of graduate study to individual doctors in distinction from groups."

Dr. Alec N. Thomson, Secretary of the Public Health Committee of Kings County Medical Society, explained the plan of a correspondence course in considerable detail, and offered the assistance of the Kings County Medical Society in putting it into operation.

On motion the project of a correspondence course as outlined by Drs. Overton and Thomson was unanimously approved, and the President was instructed to appoint a committee to put it into operation.

Dr. J. S. Ames gave the annual presidential address in which he said:

"It is not boasting for me to say that the past year has been a successful one for the society, the regular machinery has worked on as usual and some innovations introduced which will, I believe, work for the betterment not only of the society but of the county at large.

"In the first place *The News Letter* has been expanded so that it now represents not only the medical society but the tuberculosis and public health societies as well. This results in giving us all the news of these societies. But of more importance the mailing list has been greatly increased so that the letter reaches county and town officials and prominent people in every village. This will give people a much broader idea of what we are doing for them in our hospitals and societies. The general public is taking more interest than ever in medical topics and a sheet of this kind will give them more accurate information than they can otherwise obtain. I do not know how the press in other villages treat their physicians, but if the residents of a certain village believe all they read in its newspaper, there would not be much respect for the medical profession.

"A most important thing is being neglected by many physicians in this county as well as throughout the state, and that is taking out insurance against suits for malpractice. In your reading of journals and daily papers you cannot help noticing the increase of these cases in the courts, and although the majority of the verdicts are in

"The lecturers will be

"Dr Albert F R Andresen, Clinical Professor of Gastro-enterology, Dr John B D'Albora, Assistant Clinical Professor of Gastro-enterology, Dr Frederick Schroeder, Assistant Clinical Professor of Gastro-enterology, Dr Julian Rose, Instructor in Gastro-enterology

"This course is to be given on Wednesday afternoons, beginning October 6, and will consist of brief and practical demonstrations and discussions of gastro-enterological diagnostic and therapeutic procedures. The members are requested to bring with them to the lectures patients who may be used for clinical material

"In general, the following outline will be followed

"October 13—General considerations of diagnosis and treatment, stressing the importance of

a simplified classification of symptoms and of dietetic procedures—Dr Andresen

"October 20—Diseases of the stomach and duodenum—ulcer, carcinoma—Dr D'Albora

"October 27—Diseases of the gall-bladder and appendix—Dr Schroeder

"November 3—Diseases of the colon,—colitis, carcinoma—Dr Rose.

"November 10—Resume of entire course, with consideration of any gastro-enterological subjects not covered previously—Dr Andresen

"Cases to be demonstrated

"October 13—1 carcinoma to show cachexia, 1 jaundice, 1 diarrhoeal, 1 peptic ulcer to show the lack of cachexia or anemia in the average case

"Please bring a gastro-enterologic case if you have any

"Dr CHARLES RAYEVSKY, President "

ESSEX COUNTY MEDICAL SOCIETY

The Annual Meeting of the Essex County Medical Society was held at the John Hancock House, Ticonderoga, N Y, October 12, 1926, and was called to order by the President, Dr Peter Noe, at 2 15 P M, with eleven members present

A report of Conference of Secretaries, held at Albany on September 9, 1926, was given by Dr Peter Noe, Willsboro, N Y. Dr Noe stated that very little was brought out

A discussion of this Conference followed

A nominating committee, consisting of Drs Dowd, Barton and J P J Cummins, made the following nominations: President, Dr W T Sherman, Crown Point, N Y, Vice-President, Dr J H Evans, Keeseville, N Y, Secretary and Treasurer, Dr L H Gaus, Ticonderoga, N Y, Censors, Drs Peter Noe, H J Harris, E C Johnson, Delegate to State Society, Dr L G Barton, Plattsburg, N Y, Alternate Delegate to State Society, Dr J Breen, Schroon Lake, N Y, Delegate to Fourth District Branch, Dr A Gersen, Elizabethtown, N Y, Alternate Delegate to Fourth District Branch, Dr C N Sarlin, Port Henry, N Y, Chairman of Legislative Committee, Dr C N Sarlin, Port Henry, N Y. These officers were unanimously elected

The Treasurer's report was read and adopted. Dr R T Saville, of Minerville, was made an Honorary Member of the Medical Society of the County of Essex

On motion of Dr J P J Cummins, Governor Smith was congratulated for his efforts in behalf of the public in furthering public health

measures which were recommended by physicians of the State

Drs Barton and Evans were appointed a committee to draw up resolution in the death of Dr C R Payne

"Whereas, Dr C R Payne, an honored member of the medical profession and a member of the Essex County Medical Society, has died since our last meeting, and

"Whereas, Dr Payne was respected and loved by all in and out of the profession, therefore

"Be It Resolved, that the Medical Society of the County of Essex express its sympathy to the family of Dr Payne and that the Secretary be instructed to publish this resolution in the County papers and to inscribe it in the minutes "

Resolution made, seconded and adopted

Dr L G Barton, Sr, First Vice-President of the Fourth District Branch, made his official visit to the Medical Society of the County of Essex

SCIENTIFIC PROGRAM

1 Hyperthyroidism and Incipient Pulmonary Tuberculosis—A Comparative Study. Dr H J Harris, Westport, N Y

2 Demonstration of Radiographs. Dr J P J Cummins and Dr M E Sargent, Ticonderoga, N Y

Reading of an Unusual Case History. Drs J P J Cummins, T J Dowd and L H Gaus, Ticonderoga, N Y

Adjournment

Luncheon served at the Moses-Ludington Hospital

Discussion was general and many questions were asked and were answered by the speakers. In response to one question Dr Plunkett presented a tentative annual budget of \$12,000 to \$15,000 for such a unit in this county, one-half of which would be paid by the State.

At the close of the discussion Dr Martin B Tinker, past President of the State Society,

moved that the President appoint a committee of three, one of which should be the Chairman, to investigate the advisability of establishing a County Health Unit of, in and for this county, to report at some subsequent meeting. The motion was seconded and carried.

Adjournment

WILBER G FISH, Secretary

SARATOGA COUNTY MEDICAL SOCIETY

The Annual Meeting of the Saratoga County Medical Society was held at the Dutch Mill, Ballston Spa, N Y, October 15, 1926, with eighteen members present. Following a delightful luncheon the business of the day was taken up.

Dr George A Wilson of Stillwater was duly elected to membership.

Dr Earl H King, President, appointed Drs A W Johnson, F Sherman and J Ledlie as the nominating committee.

Dr John Ledlie, as Treasurer, gave his report, which was accepted.

The resignation of Dr Jas T Sweetman, who served the Society as Secretary over a period of twenty years, was read and accepted.

Following the acceptance of the resignation of Dr Sweetman motion was made and seconded that he be made an honorary member of our Society.

Since Dr Ordway at Mt McGregor was unable to secure certain men to give the lectures on diseases of lung and heart, a motion was made and seconded that that course be postponed until the spring of 1927. Carried.

A motion was made and seconded that the resolution raising present dues of two dollars per annum to five dollars per annum be accepted. Carried.

The nominating committee presented the following names as candidates for officers: President, E H King, Vice-President, John Cotton, Secretary, R B Post, Treasurer, Chas Higley, Censors, Drs Fish, Gow and A W Johnson, Delegate to State Convention, Dr F Ressegue, Alternate Delegate to State Convention, T J Goodfellow. These officers were unanimously elected.

Following the business section of our meeting, an interesting paper entitled, "The End Results in Gall Bladder Surgery Dealing Especially with the Non-Calculus Group," by Dr E MacD Stanton, of Schenectady, was read.

The following doctors were present: Drs A W Johnson, Cotton, Sherman, Castree, Higley, Cornthwaite, Post, Towne, Gilmartin, Stanton, Mauro, King, Ressegue, Ledlie, Fish, Gow, Wilson, T J Goodfellow.

Adjournment

SULLIVAN COUNTY MEDICAL SOCIETY

At the annual meeting of the Sullivan County Medical Society, held on October 13, 1926, the following officers were elected for the ensuing year:

President, Dr Charles Rayevsky, Liberty, Vice-President, Dr Andrew Peters, Loomis, Secretary-Treasurer, Dr Luther C Payne, Liberty, Delegate to State Medical Society, Dr L C Payne, Liberty, Alternate Delegate, Dr R S Breakey, Monticello, Censors, Dr Howard Van Kuren, Jeffersonville, Dr John A Miller, Roscoe, Dr E Singer, Liberty, Dr C Duggan, Bethel, Dr J P Dworetzky, Liberty.

The following letter had been sent to all the members:

"Liberty, N Y, October 1, 1926

"Dear Colleague

"Please take notice that the first lecture and all the lectures and clinics have been postponed for one week. The first clinic will take place Wednesday, October 13, at 6 P M sharp, at the Maimonides Hospital in Liberty. Prior to clinic there will be the regular meeting, when the election of officers will take place, and the subject of raising the dues of the Society will be discussed.

"Clinical Lecture Course in Gastrointestinal Diseases to be given by the Gastro-enterological Department of the Long Island College Hospital Medical School to Medical Society, County of Sullivan



THE DAILY PRESS



THE CHIN AND CHARACTER

A person's chin is popularly supposed to be an indication of the degree of his will power and determination. The *New York Times* of October 31 discusses this belief and quotes from an address of Dr. Russell W. Bunting, before the recent American Dietetic Association at Atlantic City.

"A poor chin may only signify that its owner had rickets in infancy, while a strong chin may indicate not a forceful disposition but merely that as a child its owner was properly fed."

The article quotes Dr. Milo Hellman, Research Associate in Physical Anthropology in the American Museum of Natural History and lecturer on Odontology in the University of Pennsylvania.

"In most cases what is popularly known as a receding or weak chin is due to a defect in the milk which the child receives. I do not recall ever having seen a breastfed baby which developed a poor chin, while on the other hand many cases of children who were bottle-fed babies that have come under my observation have faults of the chin, a lack of jaw development. If through insufficient diet—that is, a diet which fails to furnish the right kind of body and bone building material—a child has rickets, the chin may not develop as it should."

"Chins also may project so far that they are counted as deformities. Such are due to glandular derangements. Some defect in that gland known as the pituitary body, for instance, may result in the child having abnormally large hands and feet, or a chin so large that it is unsightly. Through disease, therefore, an infant may have a trait which might be ascribed to great strength of character. Again, the large chin may be due to a malformation of the teeth, or it may be merely an inherited feature."

"From time to time have come self-styled adepts who have professed to read character by noses and chins and foreheads. The physiog-

nomists became such pests in the time of George III, for instance, that a statute was enacted threatening all professors of physiognomy with a whipping or six months in jail if they persisted in their vocation.

"As that monarch had no great strength of chin, and, in fact, the House of Hanover, on the whole, was not especially positive in its nether faces, there may have been strong personal animus in this law. Certainly George III, judging from the profiles which have come down to posterity, could not approve of the too frank criticisms of his physiognomy."

"Physiognomists recognized five leading types of chin. If the chin projected far out and was rather pointed, the owner of it was selfish, a rounded chin, but jutting, indicated benevolence, a more curved one, a passionate nature, a thin and pointed chin, a desire to love and be loved, while the receding chin denoted a cold nature, selfishness, lack of power and various other traits which did not make its bearer a social or business success."

The article also quotes "Dr. Clark Wissler of the Department of Anthropology of the American Museum also maintains that chins are not necessarily indices of character."

"There are employers," said Dr. Wissler, "who think that they are making shrewd estimates of the capabilities of persons by merely looking at them. For years we have had all kinds of experts who professed to judge of the characters of human beings by their countenances. We have had nose experts and eye experts and chin experts. The trouble with all these judgments is that when they are reduced to actual statistics they do not hold up scientifically."

Physicians, especially those who served in the Army, know how little reliance can be placed on the chin as an index of character and will power, and how futile is the so-called science of physiognomy.

CATACLYSMS OF NATURE

The cataclysms of recent months have brought home to civilized nations the helplessness of mankind in the face of the unrestrained forces of nature. Hurricanes in Florida and Cuba, and earthquakes in Armenia are still the deadly forces that they were in early historic times, with the added danger of fires in the midst of great areas of devastation from which flight is almost impossible.

Man has not penetrated the secrets of the windstorm and the earthquake. He cannot foretell either one. He can only build with steel strong enough to withstand their stresses and shocks. It is gratifying to learn that modern skyscrapers, built according to approved plans, withstood the severe tests of earthquakes that levelled all other structures.

The near approach of Mars to the earth has

ULSTER COUNTY

The Ulster County Medical Society held its regular meeting on Tuesday, October 5th, at the Sahler Sanatorium, Kingston. At the business meeting, which preceded the scientific session, Dr Raymond Crispell was appointed chairman of a Welfare Committee to canvass the resources of Ulster county in regard to public health. The following officers were elected for the coming year:

President—Dr Frederick Holcomb
Vice-Pres—Dr John F Larkin

Secretary—Dr F H Voss

Treasurer—Dr C B Van Gaasbeek.

The scientific program consisted of a paper by Dr C O Cheney, Superintendent of the Hudson River State Hospital at Poughkeepsie, on "Psycho-Therapy", and a paper by Dr Crispell on "Physiotherapy," following which demonstrations of the different baths, electrical, light and massage treatments, were given as conducted at the Sanatorium.

ALLEGANY COUNTY MEDICAL SOCIETY

The Annual Meeting of the Medical Society of the County of Allegany was held at Belmont, October 21, 1926, with the president, Dr H L Hulett in the chair. Dr H E Cooley of Wells-ville was elected president for the ensuing year, Dr N H Fuller, vice-president, Dr C R. Howen, secretary and treasurer. Drs Storner, Benedict, Connelly, Probasco and Gilray, censors, Dr C R Bowen delegate to the State Society.

SCIENTIFIC PROGRAM

Dr J W Putnam of Buffalo gave a very interesting talk on poliomyelitis and the Buffalo epidemic. There were eleven deaths out of one hundred and thirty-seven cases. Seventy per cent of the cases were under five years of age, the oldest was twenty-nine years old. Seventeen cases were of the bulbar type, fifty-six spinal, and four Landry's. The highest mortality was in the bulbar and Landry's type, the lowest in the spinal. There were instances of two cases in one family.

The serum treatment was of no use after paralysis, but might be before. Rest must be absolute. Muscles that showed some power left

must be exercised very little, or else what power they have will be lost. Convalescence was not established until all pain was gone.

Dr John Conway of Hornell gave a talk on the question "Does the cat louse convey polio?" The doctor brought out some facts to show that it does. The cat louse is the thickest during the same time of year that polio is epidemic. Several cases can be traced to the same cat. No polio is found entirely separate from cats, no polio is found in the South where there are no cat lice on the cats as the dog louse infest the cat in the South, the theory of contagion and healthy carriers does not explain the performance of polio any more than that of plague which is conveyed by rats. Cat lice will bite some people and won't others equally exposed. The paper showed work and close observation on the part of the doctor.

The Society went on record as in favor of the toxin-antitoxin campaign, and urged all doctors to use it on their private patients. A lively discussion was had in regard to the part that the State department of health and lay organizations should have in the campaign.

DINNER TO DR DOWNING

Dr Augustus S Downing, Assistant Commissioner of Education and Director of Professional Education of New York State, will be honored with a testimonial dinner in the Hotel Commodore, New York City, on the evening of Thursday, December 9th. The occasion of the dinner is the passage of the amendments to the Practice of Medicine Act last Spring and the successful inauguration of its enforcement during the summer and fall. Dr Downing has been connected with the Department of Education for over forty years and has always worked hard for medical

progress and for higher standards of medical practice. The dinner will be a recognition of the realization of the ideals for which Dr Downing was the leading champion.

The program includes Dr Livingston Farrand, President of Cornell University, toastmaster, Dr Nicholas Murray Butler, President of Columbia University, and Dr Wendell Phillips, President of the American Medical Association.

All physicians and their wives will be welcome. Tickets are \$7.50 each, and may be obtained from Dr James Pedersen, 40 East 41st Street, New York.

BOOK REVIEWS

THE THYROID GLAND By PROF CHARLES H MAYO and PROF HENRY W PLUMMER. Beaumont Foundation Annual Lecture Course IV, 1925 12mo of 83 pages St. Louis, C. V Mosby Company, 1926 Cloth, \$175

The book comprises two lectures on the thyroid gland, the first by Charles H Mayo, the second by Henry W Plummer, these lectures being the Beaumont Foundation lectures, series No 4, given under the auspices of the Wayne County Medical Society, Detroit, Michigan. The first lecture traces the history of goitre, gives a brief account of the anatomy and physiology of the thyroid gland, then takes up the various theories with reference to the etiology of goitre. The author then passes on to a discussion of the biologic chemistry of the thyroid gland leading up to the more recent discovery of thyroxin. A general survey is given of the relationship of geographic areas, environment, race, sex and age to the development of goitre. Some interesting statistical information compiled from the military draft records is included. A brief discussion is then given of the parathyroids and the metabolism in exophthalmic goitre. A brief bibliography is appended. This lecture is a very readable, interesting account of our present day conception of goitre. It is not intended to be a detailed account of any one phase of the subject.

The second lecture by Henry W Plummer gives more particularly the author's own views on the various phases of the goitre problem. There is a full account of the function of the thyroid gland, a classification of goitre which the author recommends for general use, a full and interesting account of the findings in hyperthyroid states with a careful differentiation between those found in adenoma with hyperthyroidism and in exophthalmic goitre. The author emphasizes his conception of pure hyperthyroidism as seen in toxic adenoma and the complex hyperthyroid states as found in exophthalmic goitre due, as the author believes, to a possible double secretion of the thyroid gland, namely a pure thyroxin and a possible unsaturated iodine molecule found in the thyroid secretion and produced by the excessive stimulation of the thyroid gland. At times it is somewhat difficult to separate well established facts from the author's own theories. However, in both lectures the reader can gain a very good idea of the present status of knowledge concerning the thyroid gland together with many helpful hypotheses which have many facts to support them. The book is highly recommended to all interested in endocrine diseases particularly those of the thyroid gland.

E. GOETSCH

RECENT ADVANCES IN OBSTETRICS AND GYNÆCOLOGY By ALECK W BOURNE B.A., M.B., B.Ch. (Camb), F.R.C.S. (Eng) 12mo of 344 pages, with illustrations Philadelphia, P Blakiston's Son and Company, 1926 Cloth, \$3.50

This little book takes stock of the recent advances in the field of obstetrics and gynæcology. Antepartum care, eclampsia, puerperal sepsis, placenta prævia, sterility irradiation, endometrioma and electrotherapy are particularly well covered.

Apparently progress has been made in the solution of the chemical problems of pregnancy, and clinical investigations have helped us to more definite conclusions in the management of parturition. It is stated that the treatment of prolapse has now been standardized and some space is given to illustrations which show Fothergill's method of attacking this problem. Not much mention is made of American investigators although Sampson, Rubin and Peterson are given full credit for their work. The book is valuable as a brief review. C. A. G.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION Edited by MRS M H MELLISH, H BURTON LOGIE, M.D., and CHARLOTTE E. EIGEN MANN, B A Volume XVII, 1925 Octavo of 1078 pages, with 252 illustrations Philadelphia and London, W B Saunders Company, 1926 Cloth, \$13.00

In this 25th series of collected papers from the Mayo Clinic the same character and excellence has been preserved as in the previously published series. It includes a wide range of diversified subjects meeting the interests of those working in the field of either general medicine or surgery. The papers of particular general interest are given in full, others of a more special nature are given in abstract together with the reference to the complete report to which those further interested can refer. Abdominal conditions with their surgical treatment are considered extensively, such conditions as ulcer of the stomach and duodenum, diseases of the liver and bile ducts, intestinal tuberculosis and carcinoma of the colon. There is a large section devoted to diseases of the genito-urinary tract, to an account of the intravenous chemotherapy in urinary infections and to surgical operations on the kidney and prostate. There are several important papers on the thyroid gland including the important thyroxin studies. Then further papers appealing more to the general medical man, such as cardiac disorders, obesity and hypertension, pernicious anemia and the like are included together with papers on syphilis, skin conditions, use of radium, treatment of tumors, bacterial studies in encephalitis, on tuberculosis and on hemolysis. To mention all the subjects would make a uselessly long list. The illustrations are abundant, clear and well chosen, adding greatly to the interest and importance of the papers. The volume is attractively compiled by the publishers and in general the book is to be recommended to both surgeons and internists wishing to familiarize themselves with present day methods and conceptions in the treatment of a long list of diseases as well as with the most recent discoveries of an original character in a considerable number of difficult and baffling conditions.

E. GOETSCH

AURICULAR FIBRILLATION By J. G. EMANUEL, B.Sc., M.D., F.R.C.P. The Ingleby Lectures, delivered at the University of Birmingham, May 6th and May 13th, 1925 Octavo of 31 pages Birmingham, Cornish Brothers, Ltd., 1926 Cloth, £0-3-6

Auricular fibrillation is one of the most frequent types of irregularity of the heart. The two lectures are a partial resume of the knowledge on auricular fibrillation.

In discussing the rate in auricular fibrillation, the author states "the case is different. An increase of rate from 70 to 100 does not mean that 30 more impulses have been generated." He does not say what the increase does mean, and from this point in the book speaks of 400 to 500 impulses arising in the auricles, and that perhaps 150 of these pass through to the ventricle. This statement without a definition makes the lectures confusing.

The author speaks of auricular fibrillation as a functional disorder, because sinus rhythm can be restored by quinine sulphate. The use of the word "functional" should be defined. The circus theory of auricular fibrillation is not explained at all, and is only mentioned in a most casual way. Throughout the lectures it is at times difficult to follow the meaning intended, and this combined with the fact that no bibliography is given renders the lectures less valuable than they might have been had more time been spent in their preparation for publication.

J. ARTHUR BUCHANAN

given rise to newspaper speculations—that the planet may have caused the earth storms and quakes (See the *New York Herald Tribune*, October 27) It is doubtful that any one would have detected anything unusual about Mars if the astronomers had not announced its approach to a distance of some forty million miles of the earth. The moon is one hundred and fifty times nearer and its influence is powerful enough to heap up the water of the ocean six feet twice

daily, but it does not produce storms or earthquakes. Much less can Mars harm the earth when its influence cannot be detected except with delicate instruments.

The earth and man have withstood numberless tests infinitely greater than those imposed by Mars and the moon. Still it must be admitted that lunacy may possibly follow too much worrying over the effects of Luna and Mars on the human mind.

ADULT INFANTILISM

A descriptive name for an old mental condition has been coined by Dr. Joseph Collins, according to a review of his new book "The Doctor Looks at Love and Life," in the *New York Times* for October 24. The pathological condition to which Dr. Collins refers is called Adult Infantilism which is defined as:

"The condition and conduct of an individual who, having reached maturity of physical development, remains infantile in his responses to the demands and obligations of life.

"Psychic infantilism in adults is characterized by the persistence in adult life of the peculiarities of the infantile psychic state. These peculiarities are weak judgment, oversuggestibility, imaginativeness, outbreaks of emotional anxiety, exaggerated sensibility, easily induced fatigue, evanescence of emotional states—particularly grief—and, in general, a trivial or playful attitude toward life. When the psychic development does not keep pace with years and with physical maturation we are justified in calling the individual an adult-infant.

"Adult-infantilism is our chief deficiency as a people, our most conspicuous national shortcoming. It is responsible for more maladjustment, more family discord and more intellectual vagrancy than any disease, derangement or other disharmony of mind and body. And the number of people thus afflicted seems to be increasing."

Many have remarked in this country of late a growing spirit of lightness, of instability and chameleon judgment. Europeans often make a point of assuring Americans that they are extremely clever and resourceful, only to smile, when the back is turned, and to pronounce us, when out of earshot, "childish."

"Take politics seriously?" No. That, according to Dr. Collins, Americans do not do. For, he notes, "to follow the trend and achievements of the country requires maturity of mind, which involves emotional maturity. That is what we lack. The happy-go-lucky attitude is so much easier. We would rather play golf or go to a football game than vote, and we cannot take the time from radios and movies to inquire into the merit of constitutional amendments. We, moral men and true, find it much easier flagrantly to break the law prohibiting the manufacture and

sale of alcohol than we do to cooperate in getting it changed or modified so that we, moral men and true, can face ourselves as such in the mirror.

"The way to make man drink is to have another man tell him he must not. Hence thousands, probably millions, who a few years ago had small inclination to take alcohol now have an urge to do so which they coddle.

"We are satisfied with ourselves and with our neighbors who agree with us and who conform their conduct to ours, but we are dissatisfied with all others and determined to make them mend their ways.

"It is the way the past generation has brought up its children, spiritually and materially, and the way the present generation is bringing up its own that is responsible for our personal and national infantilism.

"Is there any way out? No easy way. The young should be taught how to think. Thought is the expression of power in its highest and noblest form. It is the enemy of privilege, the friend of mercy, the proponent of justice."

The condition underlying adult childishness is expressed in the *Daily Press* Department of the last issue of this JOURNAL in the article on "Progress in Mental Capacity." This is a nation of children of an average mental age of fourteen years who have all the rights of choice of action that are granted to the most gifted thinkers. Eating, drinking, clothing, housing and merrymaking comprise the round of ideals of children who do not aspire to higher things because of the limitations of their mental age.

The remedy lies not in more intensive thought, for the average person cannot reason like a professor of mathematics. The cure consists in arousing obedience and respect for authority. A child or an animal may be taught to obey, but obedience is not always compatible with American independence. We are now passing through a stage of the excessive assertion of individual rights, which doctors see in the familiar statement that every person has a right to the free choice of the kind of a healer that he shall employ. The next stage will be that of a respect for the rights of others, which in the distant future may be the result of free will action based on intelligent knowledge.



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Apparently progress has been made in the solution of the chemical problems of pregnancy, and clinical investigations have helped us to more definite conclusions in the management of parturition. It is stated that the same space is given to illustrations which show Fothergill's method of attacking this problem. Not much mention is made of American investigators, although Sampson, Rubin and Peterson are given full credit for their work. The book is valuable as a brief review. C. A. G.

COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION Edited by MRS M. H. MELLISH, H. BURTON LOGIE, M.D., and CHARLOTTE E. EIGEN MANN, B.A. Volume XVII, 1925 Octavo of 1078 pages, with 252 illustrations Philadelphia and London, W. B. Saunders Company, 1926 Cloth, \$13.00

In this 1925 series of collected papers from the Mayo Clinic the same character and excellence has been preserved as in the previously published series. It includes a wide range of diversified subjects meeting the interests of those working in the field of either general medicine or surgery. The papers of particular general interest are given in full, others of a more special nature are given in abstract together with the reference to the complete report to which those further interested can refer. Abdominal conditions with their surgical treatment are considered extensively, such conditions as ulcer of the stomach and duodenum, diseases of the liver and bile ducts, intestinal tuberculosis and carcinoma of the colon. There is a large section devoted to diseases of the genito-urinary tract, to an account of the intravenous chemotherapy in urinary infections and to surgical operations on the kidney and prostate. There are several important papers on the thyroid gland including the important thyroxin studies. Then further papers appealing more to the general medical man, such as cardiac disorders, obesity and hypertension, pernicious anemia and the like are included together with papers on syphilis, skin conditions, use of radium, treatment of tumors, bacterial studies in encephalitis, on tuberculosis and on hemolysis. To mention all the subjects would make a uselessly long list. The illustrations are abundant, clear and well chosen, adding greatly to the interest and importance of the papers. The volume is attractively compiled by the publishers and in general the book is to be recommended to both surgeons and internists wishing to familiarize themselves with present day methods and conceptions in the treatment of a long list of diseases as well as with the most recent discoveries of an original character in a considerable number of difficult and baffling conditions.

E. GOETSCH

AURICULAR FIBRILLATION By J. G. EMANUEL, B.Sc., M.D., F.R.C.P. The Ingleby Lectures, delivered at the University of Birmingham, May 6th and May 13th, 1925 Octavo of 31 pages Birmingham, Cornish Brothers, Ltd., 1926 Cloth, £0-3-6

Auricular fibrillation is one of the most frequent types of irregularity of the heart. The two lectures are a partial resume of the knowledge on auricular fibrillation.

In discussing the rate in auricular fibrillation, the author states "the case is different. An increase of rate from 70 to 100 does not mean that 30 more impulses have been generated." He does not say what the increase does mean, and from this point in the book speaks of 400 to 500 impulses arising in the auricles, and that perhaps 150 of these pass through to the ventricle. This statement without a definition makes the lectures confusing.

The author speaks of auricular fibrillation as a functional disorder, because sinus rhythm can be restored by quinidine sulphate. The use of the word "functional" should be defined. The circus theory of auricular fibrillation is not explained at all, and is only mentioned in a most casual way. Throughout the lectures it is at times difficult to follow the meaning intended, and this, combined with the fact that no bibliography is given, renders the lectures less valuable than they might have been had more time been spent in their preparation for publication.

J. ARTHUR BUCHANAN

THE PEAKS OF MEDICAL HISTORY An outline of the Evolution of Medicine for the Use of Medical Students and Practitioners By CHARLES L. DANA, A.M., M.D., LL.D. Octavo of 105 pages, with illustrations New York, Paul B Hoeber, Inc., 1926 Cloth, \$3.00

In this work, Dr Dana has given us the best modern, brief handbook on the history of medicine. He begins with the Pro-Hippocratic Period and, in his inimitable style, presents a panoramic view of the intervening periods down to the first half of the nineteenth century.

The book consists of seven chapters, viz Introduction, The Hippocratic Period, The Alexandrian School, Galen and the Post-Galenic Period, The Renaissance of Medicine, The Period of Harvey, Physiology and Research, The Period of Jenner and Modern Medicine.

Dr Dana presents medical history by introducing to us those who have been pioneers and leaders in the evolution of the various branches of medicine.

It is our belief that the neophyte who reads this book will be inspired to delve more deeply into the progress of the healing art and that those who are students of medical history will find fascinating reading in this volume. For those who wish to make a more detailed study of the history of medicine, a very helpful and well-selected bibliography has been included.

The text has been enhanced by the incorporation of a considerable number of excellent illustrations and plates.

As an example of book-making, Mr Hoeber, with his usual good taste in make-up and typography, has produced a most attractive volume. F

ROENTGEN INTERPRETATION A manual for Students and Practitioners By GEORGE W. HOLMES, M.D., and HOWARD E. RUGGLES, M.D. Third edition, revised. Octavo of 326 pages with 226 illustrations Philadelphia and New York, Lea and Febiger, 1926 Cloth, \$5.00

This work is an outline of the general subject of Roentgen diagnosis intended chiefly for students in this specialty. The authors emphasize the importance of a good groundwork in pathology for a proper interpretation of the abnormal shadows seen on the film. This book includes chapters on the normal anatomy of the skeleton, and the more common developmental variations of the same. Appended to each chapter are references to the literature for the benefit of those who wish to pursue further study of any particular subject treated therein.

There are suggestions as to the positioning of the patient for the study of particular parts or organs. The book is up to date including such recent developments in this specialty as ventriculography and the use of iodized oil in diagnosis. The illustrations are particularly good.

As a text book on general Roentgen diagnosis, this is one of the best works in any language. The student, in order to become proficient in this specialty, must supplement this work with an extensive study of the literature and a large amount of clinical material as recommended by the authors. J G W

PERNICIOUS ANEMIA By FRANK A. EVANS M.D. 12mo of 178 pages. Baltimore, Williams and Wilkins Company, 1926 Cloth, \$2.50

This excellent monograph on Pernicious Anemia presents the most recent facts concerning this condition. The author discusses clearly accurately and instructively the findings and theories of the disease carefully differ-

entiating it from the other forms of anemia. Brief chapters logically lead from the definition, occurrence and pathological anatomy to the etiology, clinical description, diagnosis, present treatment and prognosis of this fatal condition. From the viewpoint of results of treatment at the present time, Pernicious Anemia is incurable but efforts such as the author's tend to lead to encouraging results. This work should be studied by all who care for patients. The author and publishers have given us an excellent book. HENRY M. MOSES

THE SECRETION OF THE URINE. By ARTHUR R. CUSHNY, M.A., M.D. Second edition. Octavo of 288 pages with diagrams. London and New York, Longmans, Green and Company, 1926. Cloth, \$5.50 (Monographs on Physiology)

The previous edition of this monograph is well known, and there is no apparent reason why this edition should not receive the same careful consideration. The secretion of the urine has long been a subject for investigation, and much effort has been expended on it. The way the kidney accomplishes its function has not been entirely worked out, but every phase of the subject is presented in this book, so that anyone may know and understand the present knowledge in this field.

This book is of value to student, practitioner, and investigator. The subject matter is clearly presented, and frequent illustrations add to the facility of reading. J ARTHUR BUCHANAN

THE MODERN TREATMENT OF HEMORRHOIDS By JOSEPH FRANKLIN MONTAGUE, M.D., F.A.C.S. Octavo of 296 pages, with 116 illustrations. Philadelphia and London, J. B. Lippincott Company, 1926. Cloth, \$5.00

We have had a great deal of pleasure in reading this book by Dr Montague.

The chapter on the pathology of hemorrhoids, in which there are a number of illustrations, should give the student a complete knowledge of their structure.

The fact that Dr Montague describes a number of operative procedures, the injection method and the electrical methods in the treatment of hemorrhoids shows that he does not consider any one method applicable to all cases. Attention, in this particular, may be called to the tabulation of the different treatments indicated for the cure of the various types of hemorrhoids.

There is a description entirely original with the author, of the use of radium in the treatment of hemorrhoids which deserves attention.

In this book one may find in a comprehensive form a description of every well-recognized method of treating hemorrhoids. CHARLES GOLDMAN

BRAINS OF RATS AND MEN A Survey of the Origin and Biological Significance of the Cerebral Cortex. By C. JUDSON HERRICK. 12mo of 382 pages with illustrations. Chicago, The University of Chicago Press, 1926. Cloth, \$3.00

The two species of mammals whose behavioral responses have been studied most carefully under conditions of laboratory control are rats and men. The author's discussion centers around the psychology of these two animals, as investigated by objective methods.

The reader will probably recall *An Introduction to Neurology* by the same writer. The present book is graced by the same clear presentation and interesting style of that memorable volume.

Students of psychology and neurologists will find a great deal of interest and value in *Brains of Rats and Men*. FREDERIC DAMRAU

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THE POMEROY MANEUVER IN THE TREATMENT OF THE PERSISTENT OCCIPITO POSTERIOR POSITION

By HARRY ARANOW, MD, F.A.C.S., NEW YORK, N Y

BEFORE a body of this character I need no apology for the theme of this short paper. You all know that the O P position is a most eventful position and, in spite of all that has been written on the subject, the handling of a persistent O P position often taxes the ingenuity of the best obstetrician. Under the circumstances, we cannot afford to overlook a method which promises an easy and safe delivery. After an experience of over ten years of its employment in hospital and private practice, we feel that the Pomeroy Maneuver is just such a method, and, when indicated, has nothing superior at present.

To the best of our knowledge, the description of this maneuver has never been published either by Dr Pomeroy or by his associates. As a result, few obstetricians have heard of it and fewer still understand its mechanism. The unfortunate and early death of Dr Pomeroy, one of the most brilliant obstetricians of our time, makes us fear that the method may be overlooked or forgotten without being accorded a real test of its value.

WHAT IS THE POMEROY MANEUVER?

The Pomeroy Maneuver is a method employed in the correction of the *Persistent O P* position which, with a *single* introduction of the hand into, the *lower* uterine segment, flexes the head, rotates the body of the baby on its own axis *180°* and, brings the head of the baby back into the *same* oblique diagonal of the pelvis *O A*.

DESCRIPTION, FIGURE 1 R O P

The patient is prepared in the usual manner and anaesthetized. The vagina is "ironed" out. The operator uses the right hand in the R O P and the left hand in the L O P position. A long glove is of advantage but not necessary, as the hand is rarely introduced beyond the wrist. The hand and forearm is lubricated and the operator faces the leg of the patient towards which the occiput points, *i e*, the right leg in R O P,

the left leg in L O P. The hand is introduced into the vagina *thumb towards the rectum, little finger towards the symphysis pubis*.

As soon as the hand is introduced into the vagina, the operator by turning his body away from the patient and further pronating his forearm, brings the palm of his hand in contact with the occiput. The hand is then gently *insinuated past* the occiput until the fingers rest on the baby's shoulders. To do that the operator will have to bend his knees sufficiently to bring his straight

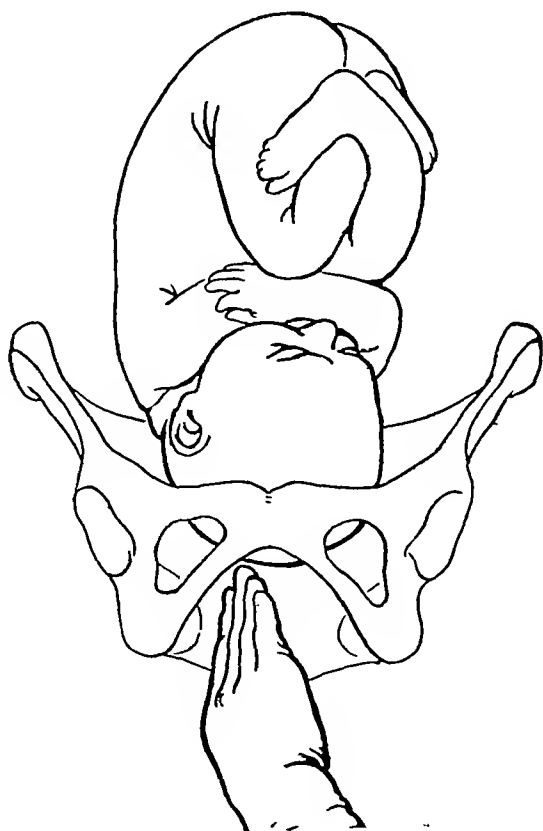


Fig 1 R O P

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926

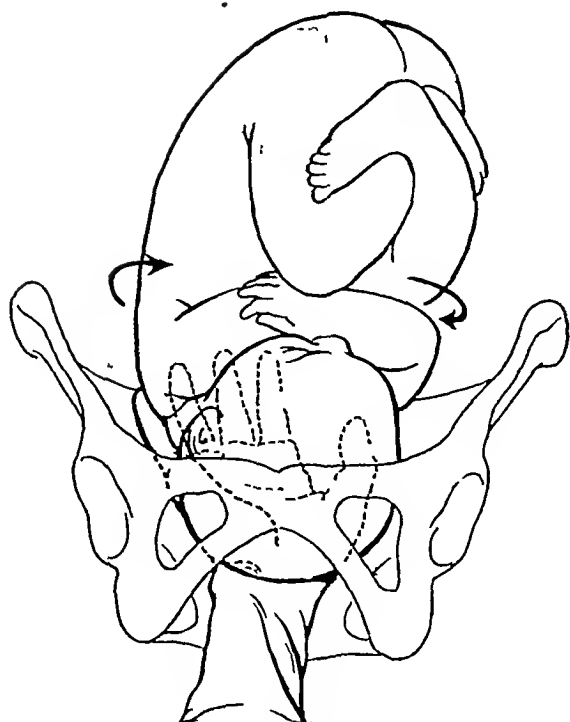


Fig 2, R O P

outstretched arm, elbow up, in line with the pelvic inlet. The operator next brings his thumb in front of the baby's posterior shoulder.

In passing the head the operator should do two things: (1) Feel the ear to make the diagnosis absolutely positive. (2) Flex the head. This releases the head from the anterior wall of the pelvis, disengages the head sufficiently for the coming rotation and makes the reaching of the baby's shoulders easier.

The head must not be displaced unnecessarily. The reason for this is self-evident, and is to avoid causing a prolapse of the cord.

The operator now has the baby's neck and occiput in front of his palm, his thumb and index finger grasp the baby's posterior shoulder, while the rest of his fingers are spread over the baby's back. (See Figures 2 and 3.)

FIGURE 3 END OF MANEUVER L O A.

By supinating his forearm, rotating his arm outwards and, at the same time bringing his body around to face the patient, the operator rotates the baby's body 180°, i. e., from R O P to L O A., or from L O P to R O A. This rotation of 180° avoids the possibility of a recurrence or springing back to the original position, and, it has the added advantage of bringing the molded or partly molded head into the *normal, molded, oblique* diameter of the pelvis. In other words, the head is brought into the same diameter of the pelvis that it was in originally,

only now the occiput is anterior. Experience has shown this to be a real advantage.

This maneuver must be done gently and without haste. The grasp of the baby is firm. The rotation being in the long axis of the baby, is always easy and requires no outside assistance.

Before removing his hand, the operator brings the flexed head down to the pelvis, assisted by pressure from the outside hand.

This completes the maneuver.

DELIVERY

The further course of treatment will depend on a fresh survey of the mother and baby, their condition, and, their relation in the new position. In a great many of these cases the pelvis is relatively large and the baby relatively small (Kerr's Operative Midwifery, page 26, Volkmann's Sammel Klin., Vortrage LX, 1892). As soon as the head is rotated it sinks deeply into, sometimes through the pelvic inlet.

These cases can be delivered with forceps immediately and the patient saved further pain and the disappointment of finding herself conscious and *undelivered*. If left to nature, they deliver themselves in a very short time, the resistance of the perineum having been removed by the "ironing" out process. In the average case, if there are no contra-indications, the mother is given a rest by a dose of morphine and the case left to nature. When the head is on the perineum, they may be delivered with forceps and saved further exhaustion.

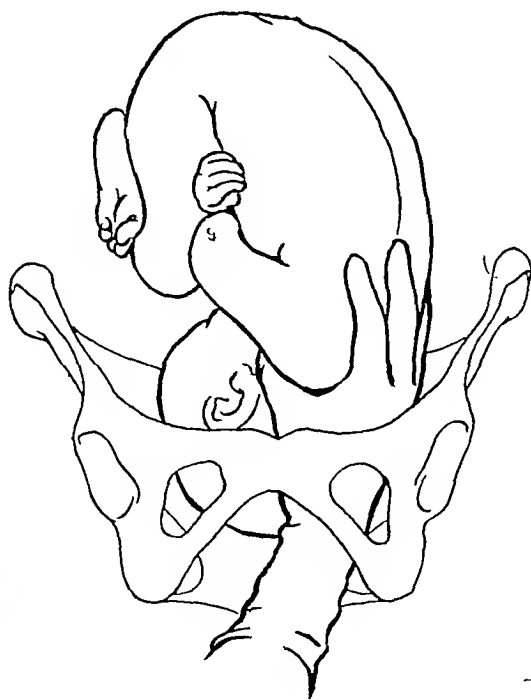


Fig. 3—L O A.

WHAT DOES THE POMEROY MANEUVER ACCOMPLISH?

It accomplishes the elimination of the O P position as a cause of dystocia. The case has been converted to an O A position and nothing has been done to interfere with any future treatment of the case that may be found necessary.

WHAT ARE ITS DANGERS?

Our experience makes us feel that with ordinary care the danger is practically nil. It should be attended with no more risk to the mother than an ordinary examination under anaesthesia. We can readily see that there is a possibility of causing prolapse of the cord. We have not had this accident as yet. Unnecessary displacement of the head should be avoided. Version has often been advocated as the best treatment for high persistent O P. Should the cord prolapse one can perform a version without removing his hand from the vagina.

WHAT ARE ITS ADVANTAGES?

1. Its comparative safety

The hand does not go beyond the lower uterine segment as it does in version.

The whole operation is performed with a single introduction of the hand.

There is no danger of rupturing the uterus.

The baby's head is not twisted on its body as it is in all maneuvers where the head is rotated either manually or by forceps. This twisting of the neck may do considerable damage to the baby.

It does less damage to the maternal parts than rotation by instruments. (It really does *no* damage to the maternal parts.)

2. It is positive in its results

The body of the baby having been rotated, the head remains in the position it is placed. In all maneuvers in which the head is rotated, it is usually hard to hold the head in place long enough to apply the forceps.

3. It is easy of performance

Once the various steps are grasped, the performance is easy. It can be done in less than a minute. My associates and interns have performed it without difficulty. It does not require the technical, obstetrical skill necessary for the performance of a version, the application and use of a Kielland forceps, the performance of a Scanzoni maneuver.

It is mechanically much easier, technically more finished and, requires less displacement of the head than "pulling on the anterior shoulder, and rotating the body with the aid of outside hand" a method suggested by some authorities.

4. It is truly conservative.

Nothing is done beyond removing the cause of the dystocia. It eliminates the O P as a cause of dystocia without interrupting the natural process of labor or interfering with any future treat-

ment that may be found necessary. No serious operation has been undertaken.

Any good physician, with ordinary care, can perform this maneuver and leave the rest to nature, feeling sure that he has done nothing that will complicate the case, and that, should consultation be necessary he has done nothing that will make it more difficult for the consultant.

WHAT ARE THE INDICATIONS FOR ITS USE?

Without going into the details of the treatment of O P positions we want to emphasize one fact, true in all operative deliveries, but especially pertinent in the O P positions. No interference until the os is fully dilated. The great majority of the O P positions terminate as O A spontaneously. In order to rotate anteriorly the occiput must strike the pelvic floor. It is the pelvic floor that directs the occiput "downwards, forwards and inwards." No case can be considered *persistent O P* until the occiput has been given a fair chance to strike the pelvic floor.

For the purpose of treatment the *persistent O P* positions may be divided into three main groups.

1. Those in which the head remains high, *i. e.*, above or at the inlet of the pelvis.

2. Those within the pelvic inlet.

3. Those cases in which the head is within the pelvis or on the perineum.

The first class is by far the most serious and the most difficult to handle, and, it is in this class of cases that the Pomeroy Maneuver is a method par excellence. To those who still feel that version should not be performed without definite indications, this maneuver should appeal as being both safer and easier. Those obstetricians who are in the habit of using, in this class of cases, a method which rotates the head, whether it be the Scanzoni Maneuver, the Kielland forceps, or manual rotation, will find this method, easier, safer, and far more certain in its results. Those who are in the habit of pulling on the anterior shoulder, will find this maneuver easier and more "finished."

In the second class of cases the Pomeroy Maneuver is indicated only when the head is easily displaced upwards, whether it be because lack of engagement or the comparative roominess of the pelvic inlet. Where the head is firmly engaged, we prefer forceps rotation of the head. Occasionally, in this type of case, we have succeeded with the Pomeroy after an unsuccessful attempt at correction by manual and forceps rotation (Case 5).

The Pomeroy Maneuver is not indicated in the third class of cases, with some very rare exceptions.

REPORTS OF TYPICAL CASES

We have selected the records of a few typical cases to show the indications, for the Pomeroy

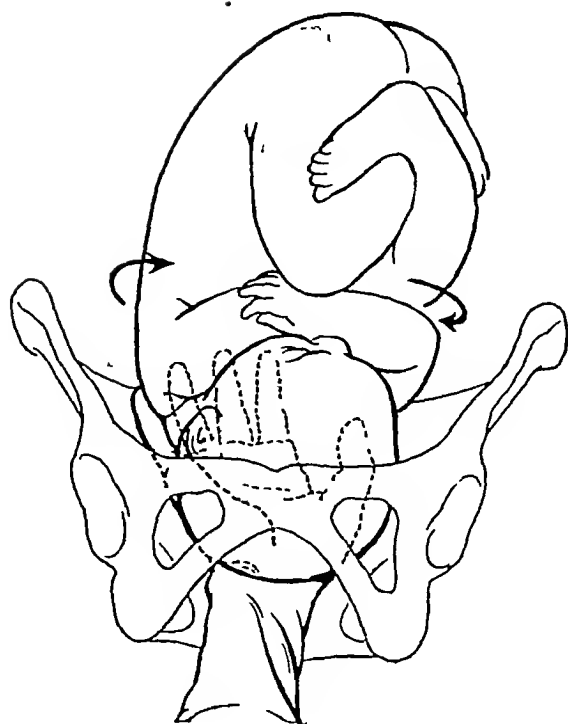


Fig 2, R. O. P

outstretched arm, elbow up, in line with the pelvic inlet. The operator next brings his thumb in front of the baby's posterior shoulder.

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FIGURE 3 END OF MANEUVER L. O. A.

By supinating his forearm, rotating his arm outwards and, at the same time bringing his body around to face the patient, the operator rotates the baby's body 180°, i. e., from R. O. P. to L. O. A., or from L. O. P. to R. O. A. This rotation of 180° avoids the possibility of a recurrence or springing back to the original position, and, it has the added advantage of bringing the molded or partly molded head into the *original, molded*, oblique diameter of the pelvis. In other words, the head is brought into the same diameter of the pelvis that it was in originally,

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These cases can be delivered with forceps immediately and the patient saved further pain and the disappointment of finding herself conscious and *undelivered*. If left to nature, they deliver themselves in a very short time, the resistance of the perineum having been removed by the "ironing" out process. In the average case, if there are no contra-indications, the mother is given a rest by a dose of morphine and the case left to nature. When the head is on the perineum, they may be delivered with forceps and saved further exhaustion.

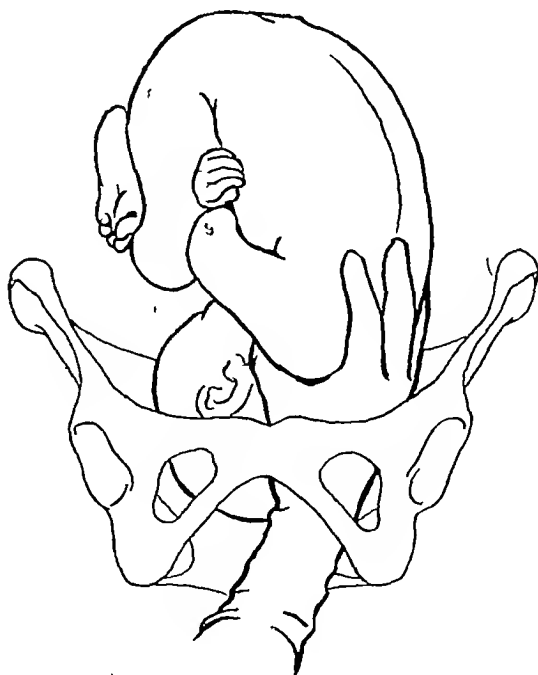


Fig. 3—L. O. A.

and so easily, that the physician assisting me, never realized I had done anything out of the ordinary, and was astonished when I told him that I had rotated the baby's body manually. He was convinced only after an internal re-examination. Baby delivered with forceps L O A, easily and without any damage to either baby or mother.

Summary Persistent R O P Occiput in hollow of sacrum Attempts at manual and for-

ceps rotation of the head not satisfactory Pomeroy Rotation followed by easy forceps delivery

CONCLUSION

In conclusion, let me repeat, that after an extensive experience of over ten years, we find the Pomeroy maneuver an excellent, safe and easy method of treatment of cases of persistent occipito posterior, high in the pelvis, and we earnestly recommend it to your consideration for trial.

APICAL PNEUMONIA—REPORT OF SEVENTEEN CASES

By GORDON S. BUTTORFF, MD, LOUISVILLE, KY

From the Department of Medicine of the University of Louisville.

ALTHOUGH the literature abounds with data on almost every phase of pneumonia, there has been comparatively little written concerning the prognosis in those cases in which the pathology is located chiefly in one or both apices. Of course it is generally conceded that the prognosis in pneumonia is less affected by the location and amount of pathology than by the degree of toxic absorption. However, the belief is current that other things being equal, pneumonic involvement of the apex of the lung offers a higher mortality than is the case when the pathology is located elsewhere in the lung.

According to Osler,¹ the cases of apical pneumonia are most apt to be accompanied by cerebral symptoms. Quoting him, "It is stated that apex pneumonia is more often accompanied by severe delirium. Occasionally the cerebral symptoms occur immediately after the crisis. Mental disturbance may persist during and after convalescence, and in a few instances delusional insanity follows, the outlook in which is favorable."

R. C. Davis² feels that involvement of the right upper lobe, either alone or following other involvement, is serious. It has been his experience that these cases are usually delirious and hard to restrain. He has further observed that when pneumococcic meningitis follows pneumonia, the area of lung involvement is the right upper lobe. Hence he concludes that the mortality rate of right upper lobe involvement is very high. That pneumococcic meningitis is usually secondary to lobal pneumonia of the right upper lobe is, clinically speaking, contradictory to Osler, who says, "It usually comes on at the height of the fever, and in the majority of the cases is not recognized unless the base is involved, which is not common."

Commenting on the location of the pathology, Lissner,³ states that, "Primary infection

of either upper lobe is not as frequent as was previously supposed, right middle lobe involvement is not common."

In a report of 225 cases of pneumonia, Owen⁴ says in part, "Of the lobar cases, five were apical (four right side), and of these, four were associated with severe delirium, one was fatal."

In reviewing 339 cases of pneumonia at the Louisville City Hospital from October, 1923, to June, 1925, our cases of apical pneumonia actually offered a lower mortality than those cases in which the pathology is located elsewhere in the lung.

Our cases have not been considered from the standpoint of signs and symptoms. It might here be added that none of our apical cases showed marked delirium or cerebral symptoms, nor were any of this type complicated by pneumococcic meningitis.

Our cases were not typed and therefore, no effort was made to determine etiology. Many of our cases were admitted practically moribund, and the work on them was insufficient to determine from the record just which lobe was involved, other than "pathology at the bases," etc. For this reason I have merely classified my pathology as, at the apex, at the bases, or combined, in which case apex and base were involved together or with the middle lobe.

This paper is not offered with the idea or expectation of revolutionizing our beliefs about the severity of apical pneumonia—too many uncontrolled factors enter into these cases for that—but it is thought that perhaps in the course of time, if the cases in other hospitals are reviewed with this aspect in mind, it might be found that pneumonia involving the apex of the lung is no more to be feared than cases with the pathology elsewhere.

Maneuver, and what is equally as important, the proper kind of after-treatment. An improperly selected high forceps application is no more justified after a Pomeroy than at any other time, but it may mar the result of a well-selected, perfectly performed maneuver.

Case 1—Mrs T F, age 22, nat U S, married 19 mos, Para 1 family, previous and menstrual history unimportant. Last period, April 6, 1916. Date of expected confinement, Feb 13, 1917. Pelvic measurements, normal. Pregnancy, normal.

Patient went into labor early in the morning of Feb 9, 1917. Admitted to Lebanon Hospital at 7 A M, Feb 9, 1917, in active labor. Throughout the day patient had characteristic, irregular, ineffectual pains. Given morphine in sufficient doses to give patient some rest. At 9 A. M, Feb 10, 1917, patient fully dilated, head unengaged in R O P position. Membranes ruptured. Active pains and no progress after five hours. Patient taken to operating room at 2 P M. Pomeroy Maneuver performed and patient allowed to come out of a very short anaesthesia. Baby born spontaneously at 2 35 P M.

Summary Patient made no progress with five hours of good pains, but delivered herself within a half an hour after a Pomeroy.

Case 2—Mrs A S, age 25, nat U S, married 6 months, Para 1 family, previous and menstrual history unimportant. Last period April 28, 1924. Date of expected confinement, Feb 5, 1925. Pelvic measurements Sp 24, Cr 28 Tr 33 Ext Conj 20 R O 23 L O 23 Bisischial 11 Post sag good Diag Conj ample.

Went into labor on the morning of Jan 25, 1925. Admitted to Nursery & Child's Hosp. Fully dilated at 4 P M, Jan 25, 1925. Head high, R O P. Roomy pelvis. No progress at 9 P M. Taken to delivery room and Pomeroy Maneuver performed. Head sank down into pelvis at end of maneuver. Delivered with forceps easily and without any apparent damage to either mother or child.

Summary Persistent O P in justo major pelvis. Pomeroy rotation followed by immediate forceps delivery.

Case 3—B S, age 26, nat Russia, Para 11, family, personal, and menstrual history unimportant. Previous labor, difficult.

Called to see the case in consultation with Dr H. Patient has been in labor for 36 hours. Full dilatation for hours with no progress. Admitted to Lebanon Hospital at about 3 A M, Feb 23, 1924. Pomeroy rotation. Head remained high after maneuver. Attempt to engage with forceps unsuccessful. Patient allowed to come out and given $\frac{1}{4}$ gr of morphine by hypodermic. At 9 50 A M, Feb 24, 1924, head on perineum. Delivered with low forceps. Still-born.

Summary Persistent O P. Contracted pelvis. Pomeroy rotation. Head high. Attempt to engage the head with high forceps was poor judgment on my part. When left to nature, head came down on perineum in a few hours.

Case 4—Mrs J F, age 27, nat. U S, married 10 months. Family, previous, and menstrual history, unimportant. Date of last menstruation, Nov 20, 1924. Date of expected confinement, Aug 27, 1925.

Measurements Sp 22, Cr 27, Tr 31, Ext Conj 17, R O 23, L O 21, Bis 10, Post Sag good, Diag Conj 12.

Pelvis, poor. Funnel type with Naegele characteristics. Pregnancy uneventful except that the head remained in R. O P position in spite of postural treatment and that the head remained high above the inlet and could not be brought down. Consultation with another obstetrician suggested and accepted. Consultant advised waiting for a "test of labor." Patient had irregular pains from Aug 30 to Sept 7, when she went into active labor. Readmitted to the Nursery & Child's Hosp on Sept 7, 1925, Labor Day. When I arrived from my country home several hours later, patient was in active labor, os almost fully dilated, membranes ruptured for some time, probably for days, fetal heart rapid and poor.

Taken to delivery room and Pomeroy rotation performed. Fetal heart rapid and irregular making immediate delivery urgent. When gentle attempt to deliver with forceps failed, a podalic version was done and baby delivered without difficulty.

Summary Persistent O P in prolonged dry labor. Pomeroy maneuver had to be followed by an immediate delivery in the interest of the baby. The O P position was no longer a factor, and the case was handled on its merits, a gentle attempt with forceps followed by a version.

Case 5—Mrs J S, age 31, schoolteacher, nat U S, married four years, Para 1 family, previous and menstrual history, unimportant. Last menstruation, April 30, 1925. Date of expected confinement, February 7, 1926. Pregnancy normal. Postural attempts at correction of the O P position not successful.

Patient went into labor on Feb 16, 1926. Admitted to the Hunts Point Hospital. Characteristic, irregular, ineffectual, labor pains. Patient given morphine P R. N. Fully dilated at 7 A M, Feb 17, 1926, head well engaged. At 10 A M the occiput in the hollow of the sacrum. Taken to delivery room and prepared. Pelvis roomy. Manual rotation seeming impossible, the Scanlon maneuver was tried. In spite of using Dr Seides modification, a proper bi-parietal application with the second forceps seemed impossible, the head turned back a little as soon as the first forceps was loosened. Accordingly, I removed the forceps, pushed the head up, and performed a Pomeroy rotation. This was done so quickly

and so easily, that the physician assisting me, never realized I had done anything out of the ordinary, and was astonished when I told him that I had rotated the baby's body manually. He was convinced only after an internal re-examination. Baby delivered with forceps L O A., easily and without any damage to either baby or mother.

Summary Persistent R O P Occiput in hollow of sacrum Attempts at manual and for-

ceps rotation of the head not satisfactory Pomeroy Rotation followed by easy forceps delivery

CONCLUSION

In conclusion, let me repeat, that after an extensive experience of over ten years, we find the Pomeroy maneuver an excellent, safe and easy method of treatment of cases of persistent occipito posterior, high in the pelvis, and we earnestly recommend it to your consideration for trial.

APICAL PNEUMONIA—REPORT OF SEVENTEEN CASES

By GORDON S. BUTTORFF, MD, LOUISVILLE, KY

From the Department of Medicine of the University of Louisville.

ALTHOUGH the literature abounds with data on almost every phase of pneumonia, there has been comparatively little written concerning the prognosis in those cases in which the pathology is located chiefly in one or both apices. Of course it is generally conceded that the prognosis in pneumonia is less affected by the location and amount of pathology than by the degree of toxic absorption. However, the belief is current that other things being equal, pneumonic involvement of the apex of the lung offers a higher mortality than is the case when the pathology is located elsewhere in the lung.

According to Osler,¹ the cases of apical pneumonia are most apt to be accompanied by cerebral symptoms. Quoting him, "It is stated that apex pneumonia is more often accompanied by severe delirium. Occasionally the cerebral symptoms occur immediately after the crisis. Mental disturbance may persist during and after convalescence, and in a few instances delusional insanity follows, the outlook in which is favorable."

R. C. Davis² feels that involvement of the right upper lobe, either alone or following other involvement, is serious. It has been his experience that these cases are usually delirious and hard to restrain. He has further observed that when pneumococcic meningitis follows pneumonia, the area of lung involvement is the right upper lobe. Hence he concludes that the mortality rate of right upper lobe involvement is very high. That pneumococcic meningitis is usually secondary to lobal pneumonia of the right upper lobe is, clinically speaking, contradictory to Osler, who says, "It usually comes on at the height of the fever, and in the majority of the cases is not recognized unless the base is involved, which is not common."

Commenting on the location of the pathology, Lissner,³ states that, "Primary infection

of either upper lobe is not as frequent as was previously supposed, right middle lobe involvement is not common."

In a report of 225 cases of pneumonia, Owen⁴ says in part, "Of the lobar cases, five were apical (four right side), and of these, four were associated with severe delirium, one was fatal."

In reviewing 339 cases of pneumonia at the Louisville City Hospital from October, 1923, to June, 1925, our cases of apical pneumonia actually offered a lower mortality than those cases in which the pathology is located elsewhere in the lung.

Our cases have not been considered from the standpoint of signs and symptoms. It might here be added that none of our apical cases showed marked delirium or cerebral symptoms, nor were any of this type complicated by pneumococcic meningitis.

Our cases were not typed and therefore, no effort was made to determine etiology. Many of our cases were admitted practically moribund, and the work on them was insufficient to determine from the record just which lobe was involved, other than "pathology at the bases," etc. For this reason I have merely classified my pathology as, at the apex, at the bases, or combined, in which case apex and base were involved together or with the middle lobe.

This paper is not offered with the idea or expectation of revolutionizing our beliefs about the severity of apical pneumonia—too many uncontrolled factors enter into these cases for that—but it is thought that perhaps in the course of time, if the cases in other hospitals are reviewed with this aspect in mind, it might be found that pneumonia involving the apex of the lung is no more to be feared than cases with the pathology elsewhere.

SUMMARY OF CASES

Type Case	LOBAR PNEUMONIA			Total	BRONCHO PNEUMONIA			Total
	Apex	Location of Pathology Combined	Elsewhere		Apex	Location of Pathology Combined	Elsewhere	
	17	14	143	174	9	49	107	165
Average Age	31.9	40.3	38.2		25.5	27.7	40.5	
Age Limits	8-58	1-75	1 mo-95		11/3-60	2 mo-80	3 mo-95	
Male	11	10	100	121	4	29	67	100
Female	6	4	43	53	5	20	40	65
White	8	6	82	96	5	25	54	83
Colored	9	8	61	78	4	25	53	82
Recovered	11	4	74	89	7	18	48	73
Died	6	10	69	85	2	31	59	92
Post-Mortem	2	8	15	25	0	16	24	40
Per Cent Mortality	35.3%	51.6%	48%	48.8%	22.2%	58.6%	55.1%	55.7%

Summary—This report includes 174 cases of lobar pneumonia and 165 cases of broncho pneumonia, a total of 339 cases. Total number of deaths, 177, with a mortality 52.2 per cent. Of 174 cases of lobar pneumonia, the apex alone was involved in 17, the pathology was combined apex and base in 14 and at the bases in 143. The average age was 37.7 with a range from 1-85 years. Total deaths in lobar pneumonia, 85, with a mortality of 48.8 per cent. Of the cases of broncho pneumonia, totaling 165, 9 were at the apex, 49 combined and 107 elsewhere, 92 died, giving a mortality of 55.7 per cent. The average age was 29, ranging from one month to 95 years.

19.7 per cent, or 67 cases, were terminal infections with an average age of 63.5 years and a range of 19 to 95 years.

Sixty-five, or 19.1 per cent, of our cases were necropsied, 14.3 per cent being among the lobar, 24.2 per cent among the broncho pneumonia, 34.8 per cent of the cases were in females, 53 lobar and 65 broncho, a total of 118, of which 59 died, yielding a mortality of 50 per cent, 65.2 per cent were among males, 12 lobar and 100 broncho, totaling 221 with 118 deaths with a mortality of 53.3 per cent. Among the white patients, 96 were lobar and 83 broncho, totaling 179, with 103 deaths and a mortality of 57.5 per cent. Seventy-eight lobar and 82 broncho, 160 in all, with 76 deaths or a 47.5 per cent mortality, occurred among the negroes.

Comment—None of our states of apical pneumonia developed cerebral symptoms. One of our cases developed a pneumococcic meningitis, the pathology in the lung being at the right base and entire left lung. In this series of cases, involvement of one or both apices alone gave a mortality of 35.3 per cent in lobar and 22.2 per cent in broncho, as contrasted with a mortality of 48 per cent in lobar with-

out any apex involvement and 54.2 per cent in broncho pneumonia.

It would seem that pneumonia involving the apices is a little more common and perhaps less serious than is often supposed.

The mortality rate of all of our cases is far too high, but many of them were brought in almost moribund, while in others the disturbance of moving the patients into the hospital late in the disease may have been the determining factor.

The colors were almost equally divided, although the mortality was greater among the whites.

The males outnumbered the females almost two to one, but the mortality ratio was about equal.

As the sputa of our cases were not typed, etiology had to be omitted and this might perhaps have had an important bearing on our mortality in the apical cases as contrasted with those having their pathology elsewhere.

CONCLUSIONS

1. Apical pneumonia is more common and less serious than often supposed.
2. Our cases of apical pneumonia showed no tendency toward cerebral manifestations nor pneumococcic meningitis.
3. We believe that if the pneumonias in other hospitals are reviewed probably the findings will simulate ours.

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MORE RECENT STUDIES UPON THE ETIOLOGY OF POSTOPERATIVE PNEUMONITIS*

By ALLEN O WHIPPLE, M.D., NEW YORK CITY

From the Department of Surgery, Columbia University, and the Surgical Service of the Presbyterian Hospital.

THERE is no more complicated nor puzzling problem in medicine today than the study of the pathogenesis of respiratory infections. The morbidity and mortality of these diseases heads the list in our public health statistics and comes close to every one of us personally in the home, the school, the city and the country. The common cold especially in our artificial and crowded city life is the usual forerunner of the more serious respiratory diseases and in itself is a problem that has baffled all investigation.

The failure to solve this problem of respiratory infections is due to many variable factors, variables such as the association of different exciting organisms, their changing virulence, the degree of susceptibility or immunity of the host, the variations in the crowding of the populace in buildings and conveyances, the variable weather and seasonal conditions. The approaching peak of the eight-year influenza curve is a dreadful thought, a prospect no more comforting than in 1918.

The problem of post-operative respiratory infections is for the same reasons as complicated and as unsolved as in non-surgical conditions. In some ways more complicated because in addition to the above variables there are factors peculiar to surgical procedures and to altered anatomical relations. To attempt to explain all these post-operative respiratory infections on one basis or to expect to eliminate them by removing a single etiology is illogical and entirely futile.

The studies of a number of investigators in the past ten years have pointed out three fairly well defined pathological processes in the production of post-operative pulmonary complications. The first of these is the aspiration of infected secretions into the bronchial tree during a general anaesthesia with the disappearance of the cough reflex. The second is the factor of pulmonary infection due to the emboli, sterile or septic, coming from a venous thrombus. The third factor is a variable degree of atelectasis. The great majority of so-called post-operative pneumonias are associated with one or the other of these factors, and are lobular in type. These lesions differ from the ordinary lobar pneumonias in their onset, course and termination, and are for this reason frequently overlooked under the term "post-operative reaction." But they nevertheless delay the immediate recovery and in abdominal cases, because of the associated cough, jeopardize the wound healing. There are in addition a certain number of clear cut lobar pneumonias of

the type seen in medical practice due to *Pneumococcus* I, II or III, and the pneumonias associated with septicemia and pyemia.

The mistake that has been made in the discussions of the several investigators is the attempt to explain these lesions on one basis alone, without considering the many other associated factors.

In regard to the first pathological process, the aspiration of the infecting organism Höelsche (1) in 1898 was the first to prove this experimentally. He used gentian violet in the pharynx of dogs and guinea pigs under surgical anaesthesia, as an indicator, and found the dye in the smallest bronchi of six of twelve dogs, in three the dye had not descended beyond the trachea, in two dogs it had not passed beyond the larynx. In 1920, Mullen and Ryder (2) reported experiments on two rabbits in which they had injected 1 c.c. of emulsion of human tubercle bacillus into the noses of the rabbits without anaesthesia. In each case the animal developed localized lesions in the lung. Corper (3) taking this suggestion, reported in 1922 a series of experiments on 9 dogs in which he had allowed 10 c.c. of a suspension of dead human tubercle bacilli to be instilled into the mouth of the anaesthetized dog with the animal on his side. Definite pulmonary lesions were produced in all the animals, on the side on which the animal lay. Myerson (4) in 1924, published a report of bronchoscopies which were carried out in 100 patients following tonsillectomy under light anaesthesia. Of seventy-eight that did not cough during the tonsillectomy bloody mucus was present in the tracheo-bronchial tract of seventy-two, whereas in eighteen of the twenty-two patients retaining the cough reflex, no blood or mucus was found below the larynx. Lemon (5) in 1925, read a paper at the meeting of the American Association for Thoracic Surgery, an aspiration of foreign material during anaesthesia. By means of indicators such as gentian violet, India ink, 20 per cent suspension of bismuth, and lipiodol, experiments were conducted on dogs under ether anaesthesia. An attempt was made, both in the administration of the anaesthesia and in the posture of the animal to simulate closely the conditions in clinical practice. He used a variable amount of the indicator, 20 to 40 c.c. allowing it to drip slowly into the cheek of the animal by separating the lips and drawing them away from the teeth. The animals were kept under surgical anaesthesia for periods varying from twenty minutes to an hour. According to his report, the risk of extensive aspiration of mucus from the mouth into the lower respiratory passages was increased by placing

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York March 31, 1926.

the subject on an inclined plane in the head-up position. The risk decreased as the plane was reversed and to the vanishing point when a full Trendelenburg position was reached. In all other postures the dogs aspirated into the lower air passages or into the depth of the lungs, especially the lower lobes, regardless of whether the head was in a straight line with muzzle up or with the head to one side. The danger of aspiration was increased when the animal struggled under light anaesthesia, or when breathing was stertorous or if the animal swallowed or vomited. Lemon also used broth cultures of *Bacillus prodigiosus* as an indicator in 5 to 10 c.c. amounts. He does not state the number of animals in this group but says that positive cultures were found at the bifurcation and in the depths of the bronchi, and from the lung tissue itself.

Because of the large amount of indicator used in these experiments we felt that the conditions did not represent normal anaesthesia in that they were artificial and that the aspiration simulated rather than seen in patients with vomitus present in the pharynx during surgical anaesthesia.

Dr Meleny (6) of our Surgical Department undertook a similar set of experiments on rabbits using 1 c.c. amounts of lipiodol and 0.3-1 c.c. of bacterial cultures. Rabbits were tied to a board and the body tipped at an angle of 45°. In each series one rabbit was held with head up 30 minutes without anaesthesia, one with head up with deep anaesthesia for 30 minutes, and the third with head down with deep anaesthesia for 30 minutes. His results were by no means as constant as those reported by Lemon. They were as follows:

1 Lipiodol entered the lungs of the rabbit with head up with anaesthesia but did not enter the lung in the others.

2 1 c.c. of 24 hour culture of *Pneumococcus* I introduced into the mouth of non-immunized rabbits produced pneumonia, empyema, pericarditis and septicemia in all three, irrespective of the position or the anaesthetic.

3 No pneumonia was produced in immunized rabbits with *Pneumococcus* I nor in normal rabbits with *Pneumococcus* IV, irrespective of their position or the anaesthetic.

4 B. Welchii in concentrated suspension introduced into the mouth entered the trachea and lungs of anaesthetized animals, those with head lowered as well or better than those with head raised, but did not enter the trachea or lungs of unanaesthetized rabbits.

CONCLUSIONS

1 Gravity may be a factor in permitting heavy fluids like lipiodol to enter the lungs from the throat in anaesthetized rabbits with head raised or in preventing its entrance if head is lowered.

2 The factor of gravity is negligible with

lighter fluids and does not prevent their entrance under anaesthesia with head lowered.

3 Anaesthesia is conducive to the entrance of fluids from the mouth into the trachea and lungs of rabbits irrespective of the factor of gravity.

4 *Pneumococci* entering the lungs of rabbits under anaesthesia does not always produce pneumonia.

Soper (7) of Saranac has obtained results similar to those of Corper and Lemon. Working with rabbits and using live tubercle bacilli, he has been able to produce tuberculous lesions in the right lung by instilling an emulsion of the bacilli into the nostril while the animal was lying on the right side under anaesthesia. These experimental studies, as well as clinical experiments, establish the fact that under general anaesthesia aspiration can and does occur, but it must be remembered that the production of an inflammatory process depends upon the virulence of the organism, susceptibility of the patient, the presence of a damaged area of lung-tissue and the ability or disability of the subject to expel the contaminating material. The remarkable fact is that pneumonia does not occur more frequently following general anaesthesia.

The second pathologic process. Infarction of the lung.

Cutler (8) has emphasized this factor in a number of brilliant papers. In his last report of 63 post-operative pulmonary complications he classified thirty-two, or one half, as belonging to this embolic group. Many of the cases which he describes occurred shortly after operation and their signs and X-ray findings were very similar to the group which we consider at the Presbyterian Clinic to be Group IV Pneumonia infections. We base our classification on serological tests which were published in our report (9) in 1918. Undoubtedly a few of the early pneumonia cases and many of the late cases are embolic in nature but Cutler does not give due credit to the factor of descending infection and to the organisms present in aspirated secretions that become active in the lung tissue damaged by infection. Colp and Louria (10) have recently carried out some very interesting experiments in our Surgical Laboratory which are of interest from Cutler's standpoint. They injected metallic mercury into the jugular vein of dogs as an indicator for studying the action of the lungs and diaphragm under the fluoroscope with and without celiotomy wounds. In an astonishingly uniform manner the mercury appeared to concentrate in the pulmonary artery branches of the lower lobes, and in some of the X-ray films more particularly in the right lower lobe. This occurred in animals with and without anaesthesia, with and without celiotomy. The anatomical or physiological reason for this is as yet undetermined.

In the late pulmonary complications there are undoubtedly many cases of embolism causing in-

fection with and without the production of a pneumonitis. These cases merge into the very serious group of cases, fortunately few, that die suddenly with pulmonary embolism.

The third pathological process Atelectasis

Following Scrimger's (11) report from Montreal the attention of clinicians was called to the condition of massive lung collapse, first described by Pasteur (12) in 1908. It soon became evident that this condition was overlooked in the absence of careful examination of the cardiac area. By percussion and X-ray the shift of the heart and mediastinum to the side of the collapsed lung is strikingly demonstrated in this condition. Since 1921 we have diagnosed 12 cases at the Presbyterian clinic as a post-operative complication. But we have looked for this condition carefully and during this same period have had no marked decrease in our pneumonitis cases. In only two of our patients coming to autopsy has this condition of partial lung collapse been found. In view of our experience I feel that the conclusions of Elwyn (13) from the Mt Sinai Clinic are open to criticism for he considers practically all so-called post-operative pneumonias occurring after a celiotomy as having a preceding partial or complete atelectasis of a lobe of the lung. He believes that the collapse or atelectasis is brought about by a reflex stimulus from the gastro intestinal tract by way of the vagus, resulting in a constriction of all the bronchioles of a portion of the lung.

Colp and Louria (10) in the course of their investigation of mercury injections of the pulmonary arteries observed that very definite mobilization of the diaphragm occurs when traction is applied to the upper abdominal viscera, especially the liver, stomach and spleen. A similar result but less striking occurs when heavy traction is applied to an upper abdominal wound. With the stoppage of movement in one leaf or the other of the diaphragm or both, there occurs rather promptly a compensatory increase in the action of the intercostal muscles with an increase in the lateral expansion of the lung. With the release of traction on the viscera or traction on the upper abdominal wound the diaphragm fairly promptly resumes its normal excursion.

These observations are of great interest for they corroborate clinical observations that post-operative lung complications are far more common following celiotomy and most common following upper abdominal operations. They further lend weight to the theory that there occurs a variable amount of atelectoasis in the lower lobes of the lung resulting in a pneumonitis. Elwyn (13) acknowledges the role of descending infection when he states "Evidence for the assumption that the infection extends from the bronchi into the atelectatic area of lung may be found in the clinical characteristics of post-operative pneumonia." It

should be emphasized that he considers atelectasis as the first step in the production of post-operative pneumonitis.

It must be evident to one who has studied this problem with an open mind that no one of these three pathological processes can be considered the sole etiological factor. The more recent studies of Myerson, Lemon, Soper and Meleney show that potentially infectious material passes down the bronchial tree in a fairly large number of individuals under general anesthesia. The theory of embolism and of partial atelectasis as first steps in the production of pneumonitis both have experimental evidence in their favor, but whether one or the other causes damage to lung tissue the infecting organism reaches it either by aspiration or as in non-operative cases by the descending route as explained in Blake and Cecil's (14) studies on pathogenesis of pneumonia.

The factors which the champions of one or the other of the above three theories fail to emphasize sufficiently are first, the increased virulence of the exciting organisms at certain times of the year and in different years. Secondly, the lowered resistance of the individual as a result of concurrent upper respiratory tract infection. Third, the factors of exposure before, during and after operation, to cold and dampness and fourth, the relaxed vaso motor tone in the shocked patient. Given any one of these factors plus any one of the first three pathological processes and the patient will more certainly develop a pneumonitis. Eliminate the latter factors and a patient with a small pulmonary infection or a partial atelectasis or aspiration of contaminated throat secretions stands an excellent chance of recovery without an actual pneumonitis—an actual inflammation of lung tissue.

Our statistics at the Presbyterian Clinic are of interest in this respect. In 1915-1916, we reported an incidence of 23 per cent, of pneumonitis in 3,719 operated cases. In 1924 our incidence was 2 per cent. In 1925 it had decreased 14 per cent. This reduction, we feel, is due to the fact that we have advised against abdominal operations of choice during the late winter and early spring season when respiratory infections are most prevalent. This, we feel is especially important in the upper abdominal cases.

That an upper respiratory infection, recent or concurrent, is a real factor is demonstrated by the fact that although in 1924 our incidence was 2 per cent and in 1925 14 per cent, the incidence of pneumonitis in patients giving the history of a very recent or concurrent cold was 15 per cent in both years. The great majority of these patients came to the hospital with such acute lesions as peritonitis or acute ileus where operation was not a matter of choice. These

figures showing an incidence ten times greater than the general incidence prove beyond question that the elimination of the factor of upper respiratory infection before and after operation is the bounden duty of the operating surgeon, and a duty not to be delegated to the interne or the nurse.

I should like to emphasize, as I did in my paper in 1918 (9), the importance of eliminating the carelessness that exists, even in our best teaching hospitals, with regard to the exposure of patients to the factors that so strongly predispose to upper respiratory infections during their stay in the wards. This applies as much to the poorly compensated cardiac or the nephritic case on the medical ward as it does to the surgical patient.

These factors are the exposure of the patients to draughts, to which they are entirely unaccustomed, to chilling during examinations, ante-operative preparations and post-operative treatments. Carefully and conscientiously look into the routine—what a dreadful word that is in a hospital—handling of your ward patients and take note of the many chances that a patient takes in the course of his first two or three days before and after operation and then begin the difficult task of cutting hospital red tape and overcoming the inertia of your ward tradition. The conscientious surgeon will be repaid in the reduction of his post-operative pulmonary complications.

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TREATMENT OF ARSENICAL ECZEMA

By BINFORD THRONE, M.D., LAIRD S. VAN DYCK, M.D., ELEANOR MARPLES, A.B., AND C. N. MYERS, PH.D.

From the New York Skin and Cancer Hospital, New York City

IN a recent paper, the authors reported a series of patients suffering with eczema in whom Arsenic was found to be the causative agent of their skin trouble. The chronic arsenical intoxication responsible for their skin disease was not, as a rule, acquired through medication, but in practically all cases through industrial contact.

As we stated in the former paper, this is the first time that scientific proof has been offered showing that this metal is the actual cause of the disease in a very large percentage of patients applying for treatment for eczema. Many authors, among them Ehrmann* deny that arsenic given in the form of medication or for the purpose of poisoning can cause eczema; they say that its external contact can cause an eczematoid dermatitis but not a true eczema. It is our contention that this external contact actually results in the absorption of the chemical and that it is its action on the body tissues and blood in these

cases, which results in those definite skin changes which are called eczema.

This chronic intoxication can be acquired through the respiratory tract through contact with Arsin (AsH_3), sublimed arsenic, powders or solutions containing arsenical compounds such as arsenious acid, lead, copper or calcium arsenite, etc. Workers exposed to the above chemicals may also have some absorption through the alimentary canal and through the skin.

The occupational histories of our patients show the following industries represented where the poisoning was acquired in the above manner. First, through the respiratory tract—submarine work, radio and automobile battery charging establishments, electroplating works, chemical factories for the manufacture of sulphuric and other acids, smelters and refineries for the reduction of metals from their ores or for the refining of metals, insecticide factories and general chemical

factories, printing establishments where gilt or bronze powder is used, farmers and gardeners. Second, the alimentary canal seems to be the chief portal of entry where woollen goods, which are sprayed with a solution of an arsenical compound as a moth preventive, is used. This group of workers is represented by tailors who put the cloth in their mouths, glucose and candy factory workers, workers in sizing and dextrin, printers and bookbinders, fruit handlers, furriers who handle raw furs. In this group, as in the first, there is also some absorption through the skin. Third, in machinists and metal workers who handle brass, copper and zinc, the absorption is chiefly through the skin.

Types of eruption which would cause suspicion of a probable arsenic causation. The most common clinical type seen is the papulo-vesicular variety with a very extensive distribution on the face, neck, limbs especially the flexor surfaces, and the trunk. Associated with the eruption there is a marked oedema of the affected parts and a profuse serous discharge. Frequently on the elbows there is found some psoriasiform scaling. On the back of the neck and upper part of the back one often sees a tendency for the skin to appear as though a papillomatous growth was developing. The lips are frequently involved and are crusted or scaling and oedematous. The palms are involved in most cases and may show either a moist oozing condition or more frequently typical arsenical keratoses which, as is known, affect the outer part of this region rather than the central triangle. These lesions are also frequently found on the inner sides of the fingers at the junction of this part with the palmar surface, but sufficiently removed from the palmar surface to show that they are not the result of chronic pressure (occupational callosities). The tips of the fingers are often dry, brittle, hyperkeratotic and fissured. There is often a corresponding nail involvement and a thickening of the nail bed. There is also in these cases increased pigmentation which of course is most marked in those of long standing.

In other cases with extensive involvement, the papulo-vesicular features are not marked and the rash resembles an universal exfoliative dermatitis. In this type of case there is extreme oedema of the skin—a tendency for erosion of the horny layer, profuse serous discharge and infiltration and thickening of the whole skin. This infiltration and thickening is in contrast with the skin as seen in the dermatitis from the arsphenamines. The distribution of the rash in this type is extensive and in most cases it is practically universal. Cases of both these types (which might be designated as the papulo-vesicular and the erythematous types) are seen in which the eruption is less widely distributed. These may show a rash of either of the above types limited to one area

or disseminated areas may be seen on the face, trunk or limbs. The development of the skin condition in places which do not come in contact directly with the arsenic containing substance would point to a systemic cause rather than to a local irritant as the etiological factor in the production of the eczema.

Associated with the skin symptoms at times are others which seem to be due to the action of the arsenic on other organs. One case gave a history of a chronic gastritis. This condition cleared up entirely as his skin disease improved without any special gastric medication. Another case showed a beginning sub-capsular cataract. It is our opinion that study of this type of chronic poisoning will show that many obscure internal conditions are due to this factor.

Diagnosis. Clinical diagnosis is only possible when a definite history of exposure is obtainable. This exposure may be quite remote from the date of the development of the skin symptoms. It is, therefore, necessary in obtaining histories of these cases to inquire very carefully as to the patient's occupational history for several years—at least three—previous to the appearance of the rash. The findings of the lesions on the hands and fingers as described above are always of great importance. The papillomatous condition at the back of the neck seems to be diagnostic.

The laboratory diagnosis was described in a previous paper. In brief, this consists of a blood and urine examination for arsenic before any treatment is instituted. The urine usually shows none, and the blood may show a trace or an amount too small to be pathologic. An intravenous injection of a freshly prepared solution of 0.5 gram of sodium thiosulphate in freshly distilled and sterilized water is given, after which the urine is collected for 24 hours and measured and examined for arsenic. In cases of eczema due to arsenic it was found in amounts of 0.87-1.062 per 100 grams of dried specimen.

After the establishment of the diagnosis, the intravenous injections of sodium thiosulphate are continued. 0.5 gram is given in freshly distilled sterilized water. The solution is prepared at the time of the injection. This point cannot be emphasized too emphatically. Solutions on standing deteriorate, a deposit or precipitate of sulphur is seen in old solutions and they are not as active as are those freshly prepared. The injections are given every third day. On the alternate days one gram of thiosulphate is given by mouth before breakfast in one dose dissolved in about four ounces of water. These injections are continued as long as clinical improvement is seen. As was stated in our paper on "Arsenic as an Etiological Factor in the Genesis of Eczema" there are tides of arsenic excretion in which there is an "Ebb and Flow

of Arsenic" With a diminution or cessation in the elimination of the chemical there develops either a recurrence or exacerbation of the clinical symptoms. With this retention of the arsenic there is seen a condition suggesting a vagotonia. It would seem that the sodium had over-stimulated the vagus and in some way this inhibits the action of the thiosulphate. When this condition develops the injections of thiosulphate should be discontinued for a few times and a substance which stimulates the sympathetic portion of the vegetative nervous system given. Calcium has this power and in these conditions we give calcium chloride. The preparation which we use is known as "Afenil." We give this in 5 c.c. doses three times a week for one week, after which the injections of the thiosulphate are resumed. The calcium seems to overcome the vagotonia, stimulates the sympathetic and thus activates the thiosulphate and the excretion of the arsenic is re-established. Clinical improvement is again noted. As was stated in the article on arsenic and eczema, blood chemistry in these cases shows a comparatively high blood sugar and a perverted chloride metabolism. On account of the improper carbohydrate metabolism, it is advisable to restrict carbohydrates in these cases. It has been our practice to eliminate all cereals, potatoes and macaroni, and allow only two or three small slices of whole wheat or rye bread a day, sugar is absolutely eliminated from the diet. Fresh fruit such as agrees with the patient and where sugar content is low is allowed. Fresh green vegetables of all kinds are allowed. It has seemed best to eliminate the heavy meats (purin containing), a moderate amount of chicken and lamb is allowed, and we have seen no bad results from them. A study of the blood uric acid is being done and will be announced later. Milk and mild cheese are allowed. Chlorides are eliminated as far as possible. External treatment is limited to soothing, protective remedies

which do not contain arsenic. We have had one case with an arsenical rash which was acquired through the use of a calamine and zinc lotion. Chemical examination of the lotion showed a high arsenic content. This point we think is of great importance. Arsenic can be easily absorbed through the eroded edematous skin, and the use of a preparation containing it would only be "adding fuel to the fire." We have found the following useful:

R Amyli Oryz		R Aquae Calcis	100.
Talc Venetian	aa 10	Oler Olivarium	150
Aquae Calcis	15	Tragacanth	q.s.
Oler Olivarium	120	M Sig External Use	
M Sig Ext use			

To either of the above Phenol 1—2 per cent and Menthol $\frac{1}{4}$ per cent may be added, or a dusting powder such as the following can be applied especially when the serous discharge has stopped:

R Camphor trit	6
Zinc stearate	16
Powdered starch	50
M Sig External use.	

For the oozing edematous condition of the face and lips, wet compresses of boric acid 1 or 2 per cent in camphor water are very beneficial.

In conclusion, we would say that in cases of eczema where arsenic is the causative agent, this line of treatment is specific.

The duration of the treatment depends, as in other conditions, on the duration of the disease when treatment is first instituted. In old cases the arsenic is firmly "fixed" in the body tissues and its elimination is necessarily slow.

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RAYNAUD'S DISEASE—A PATHOLOGIC ENTITY—REPORT OF A CASE FOLLOWING LERICHE OPERATION

By W. F. CUNNINGHAM, M.D., NEW YORK CITY

RAYNAUD'S disease is generally regarded as a functional vascular disturbance, dependent on defective vasomotor control. The object of this paper is to record the pathologic changes in a typical case, to proffer the view that the disease is a pathologic entity, and to relate the course following removal of adventitia from the brachial and femoral arteries.

In 1862, Raynaud (1) published his mono-

graph on this disease, reporting twenty-five cases, five being personal observations. From this time dates the syndrome by his name—the symmetrical tendency—local syncope—local asphyxia and gangrene apparently without any organic vascular lesions. Two cases with autopsy were reported but the pathologic histology was inadequate for conclusions. In one of these cases there was hypoplasia of the aorta, femorals, brachials, anterior and posterior tibials and mitral valvulitis.

* From the Department of Surgery, College of Physicians and Surgeons, Columbia University, New York City and Bellevue Hospital, First Surgical Division.

In 1899, Monro (2) collected from the literature 145 cases and concluded that there was no anatomical condition, either gross or minute, peculiar to the disease, although reference is made in some of the cases to occlusion of the arteries



Fig 1—Digital branches—topography—cross section through base of middle finger

by thrombi and calcification. The pathological reports are meagre and undoubtedly other well recognized conditions are included in the group

The literature on Raynaud's disease is abundant but most of it consists of case reports describing the disease associated with many infectious diseases

In 1907, Fox (3) in an article—"Notes on Some Cases of Symmetrical Gangrene—Relation to Arteritis"—reported three cases without pathologic reports

Lisser (4) in 1910 reported a case associated with syphilis and gives an extensive bibliography of the association of the disease

In 1910, Buerger (5) stated that—"We possess no data which tend to show that erythromelalgia or Raynaud's disease is dependent upon organic obliteration of arteries or veins"

It is not the purpose of this paper to discuss aetiology but to record the findings

CASE REPORT

J A Age 33 Nativity—Poland Admitted to the First Surgical Division of Bellevue Hospital on December 13, 1924 Five years ago the right big toe became red and swollen There was constant severe pain Several minor operations were performed—the toe finally sloughing off at the metatarsal joint At the same time he lost the terminal phalanx of the second left toe

Several weeks prior to admission he began to have trouble with the right middle finger—pain and swelling followed by gangrene of the tip This was attended with bluish discoloration of the hands at times and a little later the left middle finger became involved For years the patient had been so susceptible to cold that at times he

would wrap his feet in cotton. Venereal denied. Wassermann, negative.

The physical examination was negative except for evidence of mitral valvulitis and the condition of the extremities The radial pulses at times were absent, at times equal and of good volume The dorsalis pedis pulses were present at times and absent at others During the absence of pulsation the pain was markedly aggravated. There were periods of blanching and cyanotic blush.

The right big toe and the tip of the left second toe were absent The right middle finger presented a loss of substance ventrally to the middle of the second phalanx with undermining of the nail and a cyanotic blush of the remainder of the finger There was gangrene of the tip of the left middle finger

For three days both radial pulses had been absent A Leriche operation was performed on the right brachial artery just above the elbow, removing almost 6 cm of adventitia At the same time the right femoral artery was operated on

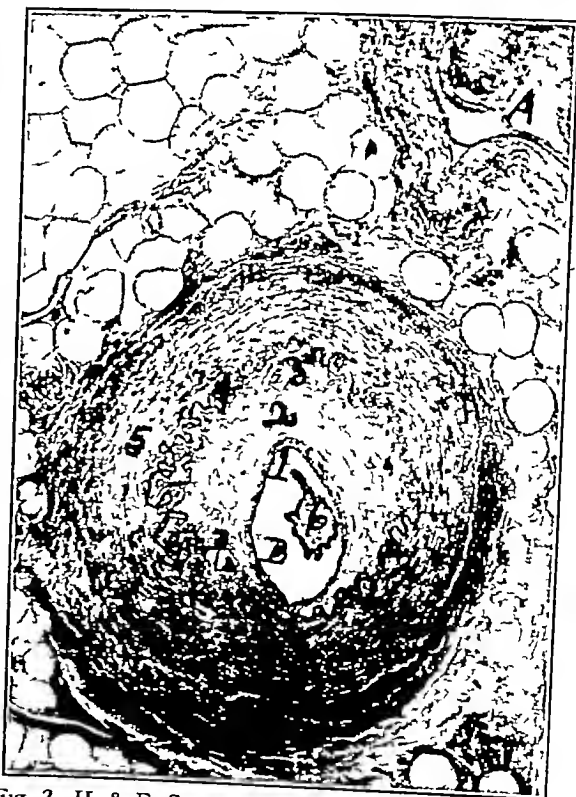


Fig 2—H & E Stain—A. Patent Vein—B Artery—1 Heaped up endothelial cells 2. Thickened intima 3 New formed blood vessels 4 Internal elastica 5 Fibrosis in muscularis 6 Fibrin and blood corpuscles

and 7 cm of adventitia removed en masse—2 cm from the common, 2 cm from the deep and 5 cm

from the superficial. Both of these vessels immediately contracted to about one-half their original calibre and were without pulsation at these sites. The left extremities were not operated on. The night following operation was attended by less pain than he had had for several days. The pulse returned to the right radial that afternoon.

The accompanying chart shows observations made on the various pulses

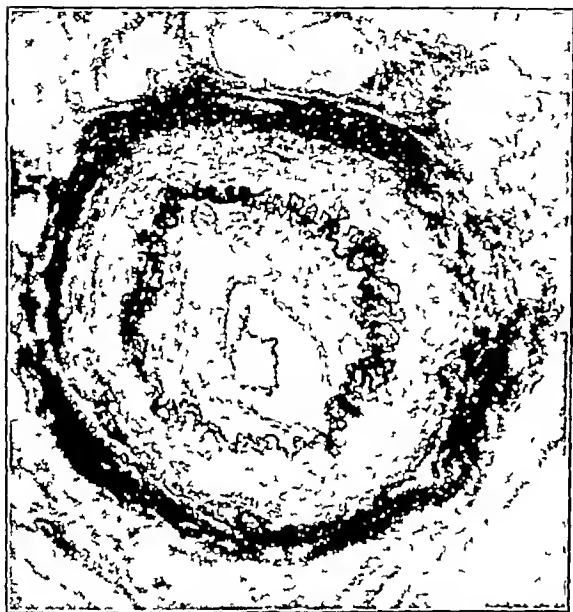


Fig 3—Weigert-Van Gieson stain showing prominent internal elastica. Same as Fig 2

	Radials		Dorsalis Pedis	Post Tib Rt. & Lt.	Popliteal	
	Rt.	Lt.	Rt. & Lt.		Rt.	Lt.
12/20/24	+	—	—	—	+	+
12/21/24						
10 00 A. M	+	—	—	—	+	+
12 30 A. M	+	—	—	—	+	+
8 00 P. M	+	—	—	—	+	+

From December 20 to December 28 observations were recorded on the pulses as in Chart 1. The right radial and both popliteal pulses were present. The left radial, both dorsalis pedis and both posterior tibials remained without pulsation.

The pain became so severe in the right middle finger that on January 5, 1925 it was amputated under local anaesthesia. Practically no bleeding was encountered. The wound healed promptly.

Pathology Macroscopic Examination Specimen consists of a finger amputated at the metacarpo-phalangeal joint. The tip of it presents loss of substance with ulceration. The nail is undermined. The epithelium proximal to this is desquamating en masse.

Microscopic Examination H & E stain. Section of digital arteries (Figs 1, 2, 3). The adventitia is normal. The media shows a patchy fibrosis. The intima is greatly thickened, eccentric in type and presents a hyaline degeneration, two well-formed patent vessels are present. The intimal lining is heaped up, the cells being columnar instead of flat. The lumen is greatly reduced and contains a few red blood cells. Another digital branch shows a similar but more pronounced reaction, here the intimal lining is composed of several layers of cells and the lumen is almost obliterated. Van Gieson stain shows to better advantage the fibrosis both in the intima and the media. The Weigert stain brings out nothing except a markedly hypertrophied internal elastic lamella.

Diagnosis Obliterating Endarteritis. Hypertrophy of Internal Elastica.

The writer has observed the various phenomena of Raynaud's disease in patients with advanced arterio-sclerosis and in the more acute lesions following exposure to cold, such as trench feet, and since writing this paper, has reviewed slides of another case said to be a typical case of Raynaud's disease. The arterial changes are those of obliterating endarteritis.

Summary

- 1—The patient showed all the clinical phenomena of Raynaud's disease.
- 2—The disease is attended by definite vascular changes, arteritis with obliterating endarteritis.
- 3—There was definite improvement symptomatically, and a constant presence of the radial pulse following the Leriche operation.
- 4—Raynaud's disease is a symptom complex associated with genuine arterial lesions.

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THE MECHANISM OF NONSPECIFIC THERAPY

By MAURICE J LEW, MD, NEW YORK CITY

NONSPECIFIC therapy has been employed much longer than the designation is known. It has been heretofore generally described as a method of treatment in which foreign agents are used to improve general body conditions. This uncertain and quasi-empiric explanation may account for its erstwhile lack of favor to the practitioner and for its negligible importance in medicine.

Nonspecific therapy does not necessarily depend upon the agents used. Nonspecific therapy is based upon the observation that the body's inherent resistance powers—the physiologic reactions of the tissues and the entire organic systems toward infections—are increased when foreign proteins are injected into the economy.

Those who employ this therapeutic method should be primarily familiar with all the hitherto known facts about the body's resistance powers so as to judge how, when and where a stimulation of the same may prove helpful in medical treatment.

Our knowledge of the organic basis of the body's inherent resistance powers is still far from complete, but enough is known to establish the existence of such powers. It is not the purpose of this paper to give a review of the methods by which scientists in the last ten years have studied this vast field, only the results that are useful and important to explain the mechanism of nonspecific therapy are pertinent.

An understanding of how nonspecific agents act will alone enable the practitioner to find a clear indication of the type of cases in which nonspecific therapy should be used and how, in individual cases, the course of nonspecific treatment should be arranged.

Nonspecific treatment as a stimulation of body's resistance has been used for centuries. Every stimulation of the skin by irritating plasters—so-called fixation abscesses, heat, cold, burns, poultices, etc., has been nothing more nor less than frequently a very harsh and not always safe method of helping the patient's condition by increasing his own power to overcome disease.

Since the work done by Petersen, E F Mueller, Weichardt (1) and many others we know that two great organic systems participate in the body's resistance.

If an infection enters any part of the body a reaction, known as inflammation, takes place. There are many theories about the nature of inflammation. Our interpretation of the actual findings is as follows. Following infection, a reaction of the surrounding tissues occurs, the vessels become dilated, they are filled with leucocytes and the cells of the tissues involved increase their metabolism. Microscopically the cells appear swollen, their protoplasm becomes cloudy, small

round cells gather and the native tissue cells, theretofore immobile, begin to move and to show phagocytic properties. Following the studies initiated by Cohnheim (1868) and followed since by many investigators, there first occurs a dilation of the vessels, this is to be considered as an active action of the vasodilating nerves, always in evidence as long as these nerves are effective and there is actually no disease which eliminates or decreases their action.

A second reaction is an increase of the number of leucocytes in these vessels. Leucocytes are not produced in the tissues involved. The bone marrow system alone creates them and if their numbers increase in any particular part of the body, their source is elsewhere.

A third reaction is of the tissues involved. For therapeutic purposes, it is impossible to augment a restricted and limited tissue reaction excepting through the production of added numbers of leucocytes, these may reach exceedingly and unlimited high figures. Therefore, the leucocytes constitute the only medium to increase the body's resistance in a local inflammation.

If one injects a tissue irritating agent into a healthy body, an immediate increase in the action of the bone marrow system follows. This is manifested by a new production of leucocytes which, after from 8 to 10 hours, appear in every vessel of the body and then participate in the formation of an abscess at the place of injection. Many physicians therefore believe that an agent which produces leucocytes in increased numbers or which stimulates even the healthy body to produce these leucocytes, is a great help therapeutically. This idea is entirely erroneous. An agent, the administration of which is promptly followed by a new production of leucocytes, shows that it is itself toxic and that the body has to exercise great effort to eliminate it. The leucocytes appearing in the blood stream after the injection of such a toxic substance are a manifestation of the attempt of the body to eliminate this foreign agent. There is no doubt that in case of a local inflammation one part of the thus newly produced leucocytes appears at the site of infection increasing the discharge, thus being of help in the ultimate eradication of the disease, but if the body has to eliminate such a toxic agent, all of its efforts to this end are lost as far as the original disease is concerned. In other words, there is a loss of much-needed energy—a diversion of the body's resistance powers to rid the system of a new hostile agency, whereas the object sought was to eliminate the toxin of the disease.

Therefore, it has been necessary to develop an agent which is able to act as a stimulator of the

bone marrow system, without being toxic enough to induce a reaction as described above. From this idea, developed in 1918 by E. F. Mueller, (2) studies were begun to produce an agent which would prove useful for therapy without introducing additional toxic substances into the human economy. These studies following the idea of Schmidt (3) who first introduced milk into this therapy, were successful and a nontoxic albumen preparation was developed which has the following properties. If injected into a healthy body, no clinic manifestations occur. Even doses of 20 or more cc of this milk-albumen suspension (Aolan) which contains the same per cent of albumen, as milk, do not produce any of the known reactions of other nonspecific agents such as fever, chills, leucocytosis and smarting. However, its administration in healthy bodies is not without reaction, even if clinically no symptoms occur and the patient is not conscious of the same. Since the development of this germ- and toxin-free lactalbumen solution, other milk derivatives for which like claims are made, have been produced.

The first symptom after the injection of such an agent in the healthy body consists of a sudden reaction of the entire leucocytes in the body. Careful examinations will show that the leucocytes drop slowly in the periphery and research work has demonstrated that they gather in the splanchnic region. (4) This is only one effect of a great systemic action involving the entire involuntary nervous system. The involuntary nervous system controlling the vessels, immediately stimulates the entire bone marrow system and the entire vasocontrolling nerves. But after the use of such a nontoxic agent, the clinical evidence of this reaction is so minor that the normal tissues equalize it immediately and there ensue no clinical symptoms.

This is very much different in patients with general or local infections. The same stimulus of the involuntary system becomes immediately noticeable and while the same changes in the leucocytes occur, the tissues involved do not equalize this reaction. However, the bone marrow system in every case of infection is in a state of slight reaction which responds immediately to any trifling stimulus, thus increasing the process of resistance. This can be demonstrated clinically as well as serologically. If, for instance, an abscess as a sequel of a staphylococcus infection exists near the kidney, the bone marrow system produces leucocytes in greater number than usual. These leucocytes contain properties to phagocyte staphylococci in higher measure than other germs. We furthermore know that there are bodies produced which are able to attack staphylococci by agglutination and other serologic manifestations and that the nonspecific stimulus reaching the bone marrow system immediately increases this process, already begun.

Again, if, in the first days of a typhoid fever infection a protein agent is given early, the typhoid agglutination is increased. If in a normal human being who has had an injection of typhoid germs for vaccination purposes a protein injection is given, the already increased agglutination power of the serum will be increased but if the same protein is given to a healthy human being without previous injections of typhoid vaccine, the very slight agglutinating power against typhoid germs (perhaps 1:50) is in no manner changed. There is no longer any production of leucocytes as in the case of a staphylococcus abscess near the kidney or wherever it may be. In other words, we are not able with nonspecific agents and with the nonspecific stimulus following their use which reaches the bone marrow system, to produce any reaction other than to increase an already started reaction of resistance of this particular organ. We know that the stimulus is purely nonspecific. The reaction on the other hand is absolutely specific and follows the line of the previously started reaction against this type of germs already present in the body.

This demonstrates that the use of nonspecific agents has to be limited to the treatment of infectious cases only. It is impossible to prevent infection by nonspecific agents, but after an infection has occurred, nonspecific agents will be of the greatest value for treatment purposes. If nontoxic agents are thus employed it becomes possible markedly to increase the body's resistance. This treatment will be especially useful when all other means to improve the local or the general condition fail. Local infections such as furunculosis, gonorrheal infections of the urethra as well as of the epididymis and joints and other local infections are examples. General infectious diseases such as puerperal septicemia in their early stages and similar acute or subacute conditions are also a proper field for nonspecific therapy.

If germ- and toxin-free protein agents are injected into the human economy the question arises: how does the bone marrow system react? There is no chemical or physical contact between the injected agents and the bone marrow system. The effect is produced not by the absorption of the agent and its subsequent distribution throughout the body, thus to reach the bone marrow in a very diluted condition, but the contact is made by an immediate reaction of the involuntary nervous system, if the protein from the circulation enters the tissues and so comes in contact with the tissue cells. This reaction primarily leads to a dilation of the vessels of the bone marrow system and then to a new formation of myeloid tissues from which leucocytes are produced and distributed.

The second question which arises is of great interest physiologically as well as therapeutically.

How is it possible that newly formed leucocytes reach the site of the infection? It was discovered that leucocytes gather immediately wherever vessels are dilated by an active nervous stimulation. We know that in infected tissues the vessels are dilated and we furthermore know that the stimulus of the involuntary nervous system created by the administration of a nonspecific agent is not equalized as in a healthy body and particularly not in the area of infection. In all these areas in the infected patient it is clinically known that the vessels are no longer in their usual condition as to calibre. Thus the same stimulus which reaches the bone marrow system reaches these dilated vessels. There the already existing dilation will increase, by this vasodilating stimulus and in these dilated vessels leucocytes and antibodies are retained, thus producing a focal reaction (4).

SUMMARY

A nonspecific agent injected into the body for therapeutic purposes, should not contain toxic substances. Toxic substances have to be eliminated. For this elimination an effort of the body's resistance is required and a loss of cells and of antibodies occurs. An extra burden is placed upon the system's resources.

In using nontoxic agents for the administration of nonspecific therapy, no clinical manifestations of a reaction (fever, chills, nausea and so forth) occur, either in healthy individuals or in diseased patients. The clinically unrecognizable reaction is the same in both. Two organic systems become influenced—the involuntary nervous system and the bone marrow system. The involuntary nervous system carries the stimulus to the organs and to the tissues of the entire body. But only such places react in which the tissues are inflamed, which stage is characterized by dilation of the vessels. This stimulus causes an increase of this latter reaction. This leads clinically to a focal reaction at the site of the infection and furthermore brings about an increase of all symptoms thus demonstrating the incidence of a fortified resistance—i. e., formation of leucocytes,

formation of antibodies, increase of focal reaction, followed by overpowering of the hostile germs, rehabilitation of the theretofore infected tissues and subsequent clinic improvement.

It has not been the aim of this paper to stress only the clinical experiences by giving the explanation of how nonspecific therapy acts by way of a cooperative reaction of the bone marrow and the involuntary nervous system. It is desired to show that in every infection this cooperative reaction, whereby the physiologic functions of resistance are strengthened, takes place. If this reaction can be increased by therapeutic measures, the latter become useful in the treatment of local and general infections.

The course of recovery from every infection takes place in the presence of certain definite known clinical symptoms. Trichophytia is not accompanied by fever but the same sycosis produced by staphylococci is often coupled with a feverish reaction. Therefore, it may be understood in an individual case that the patient with a fever-producing germ will react with fever after nonspecific and nontoxic agents are injected, not because the agent has produced the fever but because the elimination and the absorption of this germ by the body's own functions, increased by nonspecific therapy, gives rise to a feverish reaction.

If all these points are known to the practitioner he will be able to use nonspecific therapy helpfully, especially in infected conditions, wherever they occur, if he limits the indications to infections only and if he considers that in every individual case nonspecific therapy acts only by increasing the inherent body resistance.

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REPORT OF A CASE OF CORONARY EMBOLISM WITH RUPTURE OF THE HEART

By WALTER F. BOPP, M.D., NEW YORK CITY

RUPTURE of the heart is sufficiently uncommon to warrant the report of such a case with the autopsy findings observed at the Lutheran Hospital of Manhattan. The history briefly is as follows:

Male, Russian, aged 46 years.

Family history is negative.

Previous History—Usual diseases of child-

hood, since then perfectly well except for an attack of acute gonorrhea five years ago. Married twenty-seven years, wife and three children living and well, no miscarriages.

Present Illness—Five weeks ago, while traveling in Virginia, was taken acutely ill with severe pain in the right shoulder, moderate pain in the right upper quadrant of the abdomen with much

nausea but no vomiting, there was high fever accompanied by profuse sweating. After five days the pains disappeared and have not annoyed him since, the sweating persisted for another two weeks, especially during the night, then gradually ceased. As no physician was available he returned to the city. Since then he has not felt well without, however, having any definite complaints, has lost ten pounds in weight in the past five weeks, appetite has been very poor, bowels obstinately constipated and move only with laxatives, there is occasional cough without any expectoration.

On November 27 he was admitted to the Luthern Hospital with a temperature of 102.4, during the six days that he was in the hospital this continued irregularly between 99 and 102, the pulse varied between 90 and 120, regular but of poor quality.

Physical examination on admission showed a well-nourished well-developed adult male, acutely ill with skin and mucous membranes pale.

Eyes, ears, nose, mouth and throat normal, tongue moist and badly coated, teeth in poor condition.

Lungs—A Few fine rales over both lungs posteriorly, otherwise clear.

Heart—Left border 1 centimeter to the left of the nipple line, right border 5 centimeters to the right of the Sternum, apex impulse in the 5th intercostal space—very weak, heart sounds faint and of poor quality, there are no murmurs to be heard.

Abdomen—Flat, not tender, no masses felt, spleen not palpable, liver slightly enlarged—about one finger below the free ribs, slight tenderness over the gall-bladder region.

Extremities are normal.

On December 2, four days after admission, there is marked crepitation over the gall-bladder region with considerable tenderness. In view of these findings, combined with the history and temperature curve a tentative diagnosis of cholecystitis with cholelithiasis and chronic myocarditis was made.

Laboratory examinations gave the following results: blood count—2,800,000 red cells with 62 per cent hemoglobin, white cells 11,000, polymorphonuclears 67 per cent, lymphocytes 24 per cent, mononuclears 9 per cent. Blood culture sterile, Wassermann and Widal reaction negative. Chemical blood examination showed: Urea 13.6 mg, uric acid 4.7 mg, creatinin 2.9 mg, blood-sugar 0.16 per cent.

Urinalysis—Amber, acid, cloudy, specific gravity 1028, faint trace of albumin, no sugar, acetone or diacetic acid, microscopic examination showed many hyaline and granular casts.

Report of the X-ray examination by Dr. William T. Stewart was as follows: Liver shadow considerably enlarged, just beneath the free bor-

der we see shadows suggestive of gall stones. Complete gall-bladder examination advised.

These reports seemed to confirm our original diagnosis and surgical interference was being considered.

Two days later, while at supper, the patient suddenly lost consciousness, and developed all signs of an acute shock, the face and lips became pallid, the body covered with a profuse cold, clammy sweat, breathing very slow and shallow, the pulse imperceptible. A hyperdramatic of 1 cc adrenalin was given at once with prompt reaction, the pulse again became perceptible but very weak and of poor quality, consciousness returned, the patient complained of marked weakness but had no pain, the temperature rose to 103.

At ten A.M. the next morning a physical examination showed skin and mucous membranes slightly icteric, the gall-bladder enlarged and easily palpable but not tender, liver enlarged to two fingers' breadth below the free ribs, abdomen soft, no evidence of any peritoneal irritation. The heart action is very poor, the heart sounds are distant and muffled—the muscular tone is of poor quality and weak, marked dilatation to the right, no murmurs audible, temperature 99. Impression—infectious thrombus of one of the coronary arteries.

While dictating these findings to the interne the patient, much interested, was sitting up in bed. Without warning he suddenly fell back unconscious, with generalized convulsions, the pupils dilated widely and did not react to light, the mouth was drawn to the right, after two minutes the convulsions ceased, the pupils contracted to pin points, respirations two per minute and quite shallow, no pulse or heart action. Intracardiac injection of adrenalin restored a feeble heart-action which, after two minutes, stopped and could not be restored. Diagnosis—Coronary embolism with a thrombus in the heart and a probable cerebral embolism.

Autopsy performed by Dr. Frank Grauer with the following report: Permission to open the head was refused, skin icteric. Thoracic cavity—left lung shows emphysema and anthracosis, peribronchial glands swollen and greatly pigmented—there is no oedema, bronchial tubes show evidence of a bronchitis—pulmonary vessels are normal. There are adhesions between the lung and the parietal pleura. Right lung shows considerable enlargement of the peribronchial glands, anthracosis, bronchitis and a slight oedema, there are no adhesions.

Heart—The pericardial sac is greatly distended and covered with fat—it measures at its base $7\frac{1}{2}$ inches and its length is $6\frac{1}{2}$ inches. The heart appears to be pushed down into its lower right corner, on opening the pericardial sac we find it filled with a bloody fluid and a large clot, the size of two fists. There are ad-

hesions of the left ventricle to the visceral layer of the pericardium

On opening the left ventricle we find a coagulated degenerated mass in the left anterior wall of the ventricle and the whole ventricle filled with an ante-mortem clot. No attempt is made to find the exact point of perforation, as the whole left wall was entirely destroyed. The mitral valve admits only $1\frac{1}{2}$ fingers, showing a stenosis. The aortic valves are normal. There is an arterio-sclerosis of the Aorta with fatty patches. The left coronary artery shows an arterio-sclerosis and is obstructed $\frac{3}{4}$ of an inch from the opening where a calcareous deposit can be felt. The right ventricle on being opened shows normal muscle fibers, the pulmonary and tricuspid valves are normal.

Abdomen—There is no free fluid in the peritoneal cavity, the spleen is enlarged, rather hard and shows evidence of a passive congestion.

The left kidney is firmly fixed, bound with a large amount of fat and greatly enlarged, the capsule is slightly thickened but strips off easily. The kidney appears to be normal as far as the cortical and pyramidal substance is concerned. There is a small nodule, the size of a pea, in the cortex—the remnant of an old infarct. The right kidney is found misplaced—at first it appeared to be absent but it was found firmly attached deep in the pelvis. It is very small, the

pelvis is small and there are few calices. It is difficult to find the right ureter, it runs upward, then bending at an acute angle, downward into the bladder. The renal vessels are firmly fixed in the connective tissue of this region showing that it is a misplaced kidney. The orifices of both ureters are very small.

The liver is slightly enlarged and congested, the portal veins stand out distinctly and, on being cut, are full of blood. There is an old scar on the lower part of the right lobe—evidence of a former peri-hepatitis. The gall-bladder is moderately distended—on opening the duodenum and compressing the gall-bladder there is a discharge of muco-purulent fluid into the duodenum. The mucous membrane of the gall-bladder is congested and inflamed, no stones are found.

Pathological Diagnosis — Arterio-sclerosis, haemo-pericardium, embolism of the left coronary artery, with arterio-sclerosis and a calcified obstruction, rupture of the left ventricle, pericardial adhesions, emphysema, anthracosis, adhesions of the left lung, misplaced right kidney, acute cholecystitis.

We have then a case of coronary embolism with rupture of the left ventricle, simulating an attack of cholelithiasis. In conclusion I wish to express my thanks to Dr. Franklin Welker, medical director of the Lutheran Hospital, for permission to report this case.

A REVIEW OF SOME OF THE ACTIVITIES OF THE STATE INSTITUTE FOR THE STUDY OF MALIGNANT DISEASE, BUFFALO, NEW YORK*

By BURTON T. SIMPSON, M.D., Director

INTRODUCTION

IT might be of interest to some of you to learn something of the origin and development of the State Institute for the Study of Malignant Disease at Buffalo, and I will, therefore, take this opportunity to tell you a few facts concerning it. The Institute was the conception of Dr. Roswell Park, professor of surgery at the University of Buffalo. His idea was to study malignant disease from the laboratory standpoint. I think this idea of Dr. Park's originated during his stay at the Pasteur Institute, where he spent a year, preparing himself to give the Mutter Lectures on surgical pathology.

In 1898, the State Legislature at the request of Dr. Park and others, appropriated \$10,000 for the laboratory study of cancer and the Medical College of the University of Buffalo furnished quarters for the purpose of this research. Dr. Harvey R. Gaylord was put in charge of the laboratory and he, with one as-

sistant and a stenographer, comprised the staff of the laboratory at that time.

It might be mentioned that this was the first laboratory for the exclusive study of cancer to be established in the world.

From this modest start the Institute has gradually grown until at present it comprises the Gratwick Laboratory, in which are housed the pathological, bio-chemical and physical laboratories, the hospital, with its 25 beds, for therapeutic research on human beings and the biological station at Springville, where much of the animal experimentation is carried on.

The Institute employs about 70 individuals, the majority of whom are engaged in research activities.

Although much routine work of various sorts is carried on, and many patients are treated who are not of definite research value, still the original purpose of the laboratory, viz, the research investigation into the cause and cure of cancer, is maintained.

The staff is composed of a director, a pathologist, a biologist, a biological-chemist, a physi-

* Read before the Association of Public Health Laboratories November 12, 1926 Albany, N. Y.

cist and internist and a surgeon. The director has general charge of the activities of the Institute and it is his duty to correlate the activities of the several departments and to stimulate research along various lines.

The Institute is made up of the following departments: pathological, bio-chemical, physical, biological and therapeutic. Each department has its chief with one or more assistants. The chief is responsible to the director for the conduct of the work in his department.

ACTIVITIES

The activities may be roughly divided into routine and research. The routine work consists of, (1) A state-wide free diagnostic service of tissue pathology. This amounts to the examination of between eight and ten thousand specimens yearly. (2) The routine examination and treatment of patients afflicted with malignant disease. This totals over five thousand hospital and dispensary calls yearly. Besides these main activities there is the routine clinical analysis made for the hospital and dispensary patients, the pumping and measuring of the radium emanation and other similar activities.

RESEARCH

I feel that you are more interested in our research activities and I will therefore, spend the time allotted to me to touch upon some of the more important ones. As you know, there are two outstanding problems in cancer research. The one is to determine the cause of this malady and the other is to find its cure. Therefore, all research activities are either directly or indirectly centered about these two problems.

I will first consider some of our research activities in regard to etiology. In the early days of cancer research great efforts were put forth to cultivate a specific organism from cancerous lesions, for at that time organisms were being found to be the specific cause of certain infectious diseases and it was thought by some investigators that cancer might be an infectious disease. The best bacteriologists in the world spent much time and energy in these attempts. Occasionally some investigator found what he thought was a specific organism, but subsequent investigation did not substantiate these claims. The net result of all this extensive research showed, that either malignant neoplasms were sterile, or an organism could be cultivated from them, which could be placed among the known bacteria.

In the early period at our Institute, we spent several years trying to find a specific organism as the causative agent in cancer. From the results of this work and also from the work of others, we concluded that bacteria had

no specific relation to the origin of cancer.

In 1902, Jensen, of Copenhagen, succeeded in transplanting a primary tumor, found in a white mouse, into other mice, and this gave a tremendous impetus to cancer research in all parts of the world.

The Buffalo Institute obtained some of these transplanted tumor mice and an immense amount of research was done with transplanted tumors. However, it was found that this work was not of great value because we were not really dealing with cancerous individuals, for the mice that received the implant were healthy animals and simply acted as culture media for the growth of tumor cells. Jensen's success stimulated other research workers to try to find spontaneous tumors in mice, that they might establish tumor strains of their own. This led to a search for primary tumors in the stocks of the various breeders of mice and it was soon found that not infrequently, primary tumors occurred in the older mice which were kept for breeding purposes. When we first began looking for spontaneous tumors, we offered a reward of \$25 for each tumor mouse. Soon we had to cut this to \$5 and later to abandon a reward, because of the number that were offered us. The frequency of the occurrence of spontaneous tumors in breeding establishments naturally led investigators to inquire into the origin of these tumors. Careful investigation failed to disclose any apparent extrinsic cause and therefore, the question of heredity suggested itself.

Dr. Marsh, our biologist, mated a male and a female mouse which were the offspring of a cancerous mother, and started a strain of inbred mice for the purpose of observing the effect of this breeding. That particular strain has now reached 20 generations and at present, 94 per cent of the females will have spontaneous cancer of the breast. In another similar strain the incidence is 50 per cent. As these spontaneous tumors do not appear until the middle of the life cycle of the mouse, it was concluded that cancer, per se, is not inherited, but that a tendency to the development of this disease is inherited. Therefore, search was made to find some extrinsic factor which might be the exciting cause.

Much work has been done to determine whether or not trauma could be implicated. Careful examination was made for obvious parasites, such as certain mites, which are known to afflict these animals. However, after long-continued investigation, no apparent relation could be found between these factors and the origin of the tumors. Many ingenious experiments were instituted, such as placing of foreign bodies in the breast, injection of gases and liquids into the ducts, introducing under the skin of mice, parasites

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In a certain portion of the colon in white mice, there is found a minute nematode worm, which corresponds to the *Oxyuris* in the human. It was learned by careful counts that this worm was present in large numbers in the mice of high tumor strain, in lessened numbers in the 50 per cent. strain and in still less in wild mice. Sometimes mice of the high tumor strain were found to harbor only a few nematodes. This might explain the non-occurrence of tumors in the 6 per cent. which do not develop them. It has been found by experience that these nematodes do not appear until after the mouse has been weaned. They remain in the colon for 3 or 4 months and then disappear. It was thought that there might be some etiological relation between these nematodes and the origin of the cancer in the breast, for it is a well known fact that nematodes migrate to distant parts of the body. We therefore, devised methods of breeding these mice free from nematodes, by keeping them isolated and in cages through which the droppings could pass. In this way infection by food, which would otherwise become contaminated with fecal matter, was avoided. We have thus far, bred 8 generations free from the nematodes. Mice of the first few generations thus bred, did not show any decrease in the incidence of tumors, but in the later generations, there is a very decided decrease. These experiments are being continued. If we are able to entirely eliminate the tumors, we will then have a tumor free strain. If by again infecting this strain with nematodes we are able to produce tumors, it would appear that there is a definite relation between this worm and the origin of spontaneous tumors in mice.

An interesting fact in regard to these strains of tumor mice is that the male animals, at least in our experience, have never produced tumors in the breast. One might naturally inquire if pregnancy or the suckling of the young has any influence. A series of experiments to answer this question were made, and it was found that the incidence was as great in virgin mice as in those who had borne young. Therefore, the question of nursing apparently does not enter into the problem.

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Recently there has come from England a report of research work done by Dr. Gye, in which he claims to have been able to cultivate the organism of the Rous chicken sarcoma. I might state that we have done considerable work with this tumor. It is our opinion that this neoplasm differs in many respects from any tumor that occurs in humans or in other animals. Histologically, it appears to be a true neoplasm of the spindle cell sarcoma type. It differs from all other experimental tumors by the fact that it can be propagated by a cell free filtrate. Also by using a dry powder prepared from the tumors successful transplants can be made. In our laboratory we have kept this dried tumor tissue for two years and seven months and then by mixing it with salt solution we have succeeded in producing 100 per cent tumors by injecting it into fowls. Also by taking the blood of chickens dying of the sarcoma, separating the serum and filtering it through a Berkefeld candle, we have been able to produce, with the filtrate, chicken sarcoma in 100 per cent of the fowls inoculated.

Most cancer research workers are agreed that the Rous sarcoma is caused by some agent. However, there is no definite knowledge or agreement as to whether or not this agent is a particulate organism, an enzyme or some chemical substance. Even Rous, who has done the most extensive work with this tumor, is not willing to venture an opinion and speaks of the causative factor as an agent.

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cultures would successfully produce the neoplasm, but after the culture became several days old it would lose this property. Arguing from the fact that the virus remains viable for long periods in the dried state, it did not seem to him that the organism should die so quickly in cultures. Therefore, he conceived the idea that there must be two factors in the origin of the tumor. The one, the organism, and the other, some other factor which he chose to call a specific chemical substance. Rous found that many antiseptics, among which was chloroform, would kill the agent. Gye made use of this fact in his experiments. He reasoned that in older cultures a chemical substance, which is necessary for the production of tumors, disappears in some manner, but that the agent probably remained viable. He therefore, prepared freshly ground up chicken sarcoma tissue, filtered it and treated it with chloroform to kill the virus. This filtrate supposedly contains the specific chemical substance. He then made cultures from the chicken sarcoma using a special medium. Gye found that if he introduced the chloroformed material into a chicken, no tumor would occur. Also, if he introduced cultures that were several days old, into the chicken, no tumor would occur, but, if he introduced a mixture of equal parts of these, a tumor was produced. In subsequent experiments, by using the chloroformed substance mixed with cultures obtained from other animal tumors, including some from humans, he was able to produce sarcoma in chickens. From these experiments Gye evolved the hypothesis that all cancer is caused by an ubiquitous particulate organism. This, combined with a specific chemical substance, which originates from injured cells, causes tumor formation.

As soon as we learned the details of Gye's work, we undertook to repeat it. In the first place, I might mention that if we carried out Gye's experiments exactly as he did, we obtained similar results. However, we found, that if we treated the ground up tumor tissue with twice the amount of chloroform that Gye used, we were unable to obtain tumors after mixing it with cultures. We also found that if we used the exact amount of chloroform recommended by Gye, but instead of allowing it to stand undisturbed for an hour in the incubator, we agitated the mixture every five minutes or so, that we were also unable to produce tumors by mixing this with cultures. In other words, if we really killed the virus, no tumor could be produced.

As a piece of normal tissue was always contained in the culture media used in making the cultures from the tumors, it was thought that perhaps something in this normal tissue activated the agent which had been stunned by

the chloroform. We therefore, carried on a series of experiments using cultures of chicken embryonic tissue, instead of cultures from tumors, and we were able to produce tumors by this procedure. It is our opinion, deduced from our experience with this research, that Gye's hypothesis cannot be substantiated. I might mention that Dr. Murphy of the Rockefeller Institute has produced tumors in a similar manner by using cultures of placental tissues.

Dr. Kolmer of Philadelphia has reported that he has not been able to demonstrate a specific chemical substance in the chicken sarcoma and that the results of his experiments do not substantiate the conclusions of Gye.

BIOLOGICAL

Warburg of Berlin, has recently reported an interesting piece of research in regard to the biology of the tumor cells. He has found that cancer cells will maintain themselves and proliferate without the presence of oxygen. This is not true of normal adult cells. The energy is obtained by that property, which cancer cells have, of fermenting glucose into lactic acid. Warburg demonstrated this fact by experiments done *in vitro*.

Dr. Cori, the biological chemist of our Institute, substantiated Warburg's work *in vivo*, both in animals and on humans. He inoculated the wing of a fowl, with chicken sarcoma, and was able to analyze the blood going into the tumor and coming out of the tumor, for the relative amounts of glucose and lactic acid. We also had a patient with sarcoma on the arm on whom Dr. Cori was able to perform a similar procedure.

While this work of Warburg's is not of so much importance from an etiological standpoint, it does throw some light on the biological difference between cancer and normal cells. It is apparent that cancer cells contain some enzyme which has the ability of oxidizing glucose into lactic acid and it is thinkable that we may find some substance which may destroy this enzyme in the cancer cells, which as you can readily see, would be of immense value in treatment of this disease.

TREATMENT

The other great problem in cancer research is to find if possible, a successful treatment of malignant disease. We feel that surgery has been perfected and reached its limit and that we can hope for no further advance along this line. Radiation has contributed greatly in the treatment of cancer, radium and X-ray being of value, not only in connection with surgery, but oft times giving results where the patient was past surgical aid. Radiation is quite similar to surgery when used as a caustic and comparable results can be obtained with it when

used on localized lesions The question in research today concerning radiation is to determine if this agent has other effect on the cancer cells, beside the caustic effect If it transpires that radium has a specific action on cancer cells, there is great hope for the future of this agent, for we may find ways and means by which it may be applied to deep seated cancer cells without destroying the normal cells We are carrying on at the present, work aimed to determine, if possible, if radiation has a specific action on immature and malignant cells The problem in the treatment of cancer is to be able to affect deep-seated and metastatic lesions It is evident that surgery cannot accomplish this and if radiation does not have a specific effect upon the cancer cells, our only recourse will be to the intravenous injection of some substance, probably of a chemical nature, which may be carried to these cells by the circulation That there is some hope along these lines is shown by the work of Warburg This work demonstrates that there is a difference in the biology between normal and cancer cells Also in the researches of Wasserman, who found, several years ago, that the intravenous injection of selenium, combined with eosin, would affect cancer cells and not normal cells However, the difference between the fatal dose of this substance upon the normal and cancer cells was so small, that for every mouse that was cured by this method, 9 were killed

Our strains of spontaneous cancer mice offer excellent material for research in intravenous chemical therapy Of course, the choice of chemicals to uses, is purely empirical, as we have no definite lead to follow However, we are at present working with coal tar products, especially the aniline dyes, for they are some of the best known organic chemical compounds While there are several thousands of these, careful analysis shows that there are a greatly lessened number of fundamental ones We have so far worked out about 40 You can readily understand that this is a laborious piece of work, for it necessitates working out the dosage of these dyes on normal animals, before they can be applied therapeutically Our experience to the present, has not led to very gratifying results However, we have learned some interesting facts One of these is the amount of liquid a mouse can tolerate The total amount of blood in a mouse does not exceed 3 cubic centimeters Notwithstanding this, we find that we can inject intravenously, 1 cc of distilled water, every day, for a long period, without causing any apparent discomfort to the mouse Certain dyes which we anticipated would be very toxic, can be given in large quantities without ill effects On the other hand, others were found to be extremely toxic

in minute doses I might say for the benefit of those who have not had experience with the intravenous injection of mice, that the technic is rather ingenious The mouse has two arteries and two veins in its tail By using a simple binocular, it is possible to introduce a very fine needle into the veins However, this procedure is limited, for once the needle has entered the vein, that particular spot often cannot be used again, thus it is necessary to begin at the middle and work towards the root of the tail With good luck we can make from 10 to 14 or more injections on a single mouse After this the medication must be introduced subcutaneously

Recently, Blair Bell of England, has reported more or less success in the treatment of hopeless cancer by the intravenous administration of colloidal lead The use of this substance was suggested to him by the fact that abortions were frequent among lead workers He found that there was some apparent specific effect of lead on chorionic tissue Believing that chorionic cells were comparable to cancer cells, he conceived the idea of trying this chemical on hopeless cancer cases He first used the salts of lead, but finding them to be extremely toxic, he abandoned their use Later he prepared a colloidal solution of lead and fortunately the first case he used this on, showed a remarkable result He has reported in all, about 250 cases These were all advanced cancer and past any benefit from surgery or radiation A few of these cases he claims to have cured and some others offered good palliation When we first heard of Bell's work, we instituted a series of experiments on our primary mouse tumors, to ascertain if colloidal lead, made according to the formula of Bell, would have any beneficial effects on these We have treated a large number of tumor mice with colloidal lead, but have been unable to detect any favorable results In one or two mice having large tumors, there has been a softening of the tumors The contents have been drawn off with a trocar However, at the periphery there were apparently viable cells The animals treated with the lead having small tumors, showed no apparent effect and the tumors continued to grow in the same ratio as those in the control animals We have treated about 20 human cases with colloidal lead, but have seen no favorable results in any of these On the other hand, we have observed a tremendous anemia, the red blood cell count decreasing from 4,000,000 to a million and a half in a period of a week or ten days Autopsies on some of these cases demonstrated a precipitate of metallic lead in the reticulo-endothelial tissue, especially in the liver On the other hand, we were not able to detect the presence of lead in the tumor tissue



EDITORIAL



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For list of officers of County Medical Societies, see JOURNAL of October 1, 1926, advertising page xxvi.

WINTER ACTIVITIES

The activities of County Medical Societies are somewhat seasonal. Winter is the time of scientific programs, when the evenings are long and the fireside induces thought. Spring is the time for study courses, inspired by the winter's programs. Summer is the season for social gatherings and picnics—activities to be promoted. Fall is the season for the annual meetings of the County Societies, and making plans for the future.

All the year round is the time for sending re-

ports of activities of county medical societies to the New York State Journal of Medicine. But there are meetings of other medical societies—academies of Medicine, hospital staffs, county tuberculosis committees and boards of health—all of which have an interest beyond the restricted circle of their participants, for they tell how a group or community meets concrete problems which will arise in other places.

The columns of this Journal are always open to record items of medical progress.

DR OWEN E JONES

Dr Owen E Jones, President of the Medical Society of the State of New York in 1924-25, passed away on November 18, after a progressive illness of some months. He had been President of his District Branch and active in the Monroe

County Medical Society for years. He was a gifted surgeon and a leader among his confreres. He was of a kindly and retiring disposition, and leaves an example of unselfish devotion to his profession and his friends.

OUR ADVERTISERS

A standard for judging the success of a medical journal is the amount of its advertising. Those who advertise give consideration to two points about a Journal, first, its scientific news and literary appeal to physicians, and second, the response of its readers to the advertisements.

There is abundant evidence that reputable advertisers have watched our Journal with satisfaction. They say that the Journal is excellent, and is the kind of a Journal in which they are pleased to have their names appear. They have a cordial greeting for our advertising manager when he calls.

It is the responsibility of the officers of the Medical Society of the State of New York to make the Journal as good as the best. There is also a responsibility on the members of the State Society to make use of all parts of the Journal. It is a common remark by members that the Journal is good, but that they read only those parts in which *they are interested*. The gynecologist reads the scientific articles on women's diseases, the secretaries of county societies read the reports of their sister organizations, and the health officer reads the reports on public health, but the tendency of each group is to skim over the articles in which the other groups are interested.

The peculiar field of this Journal embraces these topics in which all the members are interested. When doctors converse privately with the officers of the societies, they are eager to learn about activities which they are often surprised to hear are fully reported in the Journal.

The officers and editors have set the standard that everything in the Journal shall be of interest, and that nothing shall be printed merely to fill space. They appeal to the members to read an issue of the Journal from beginning to end, and

note its features. Some members do this very thing with every issue, and it is their commendations which inspire the editors and officers to put forth renewed efforts to raise the Journal to still higher standards.

Two concrete applications of these remarks may be made.

First, the book reviews are real news items concerning the newer medical publications, and are excelled by those of no other publication in their interest and comprehensiveness. Anyone reading a review will find it to be the disinterested opinion of the physician whose name is signed to it. These opinions are valued by every publisher, for he can thereby ascertain what the doctors want to buy, and the physician will be stimulated to buy those books which will be useful to himself. A physician will be well repaid by turning to the book review department of every issue of the Journal.

Second, as to the paid advertisements, every one of which conforms to the high standards of the American Medical Association. The advertisements tell the physician where he can secure high class instruments and books and service. The advertising pages are guides to reliable manufacturers, sanatoria, medical schools, laboratories, and services which every doctor must employ. Every advertisement has more than a financial appeal to the doctor. That it is an index to the services which doctors wish, is shown by inquiries regarding firms whose advertisements have appeared in past issues of the Journal.

The object of this editorial is to call the attention of physicians to features of this Journal in which they would be deeply interested if they should look for them.

COUNTY HEALTH OFFICERS

There is only one county health officer unit in New York State—that in Cattaraugus County—but Tompkins, Suffolk and other counties are considering their establishment under the provisions of the Public Health Law. A county health unit consists of a board of health, a health officer, and such employees as may be authorized by the Board of Supervisors. The local boards of health and health officers remain as at present,

but the local health officers become deputies of the county health officer. The line of distinction between the county health officer on the one hand and of the local health officer, on the other, are not defined in any hard and fast way. Dr Paul B. Brooks, Deputy State Commissioner of Health, has made the following suggestions in an unofficial way, with the expectation that the health officers themselves shall arrange the details of

the division of their respective activities and relations

"Broadly speaking, the county health officer should accept responsibility in the following

1 Inspection of dairies and collection of milk samples This work should be done by an inspector with sufficient training and experience, such an inspector being an essential part of any county health organization Milk dealers' permits probably should be issued by the county health officer who is comparatively independent of local influences often embarrassing to the local health officers

2 Inspection of camps, boarding and maternity homes, the permits to be issued by the county board of health

3 Investigation of nuisances affecting more than one municipality, the action with reference to abatement to be taken by the county board of health Investigation of other major nuisances on request of the local health officers, the action with reference to abatement to be taken either by the local or county board of health

4 Investigation and control of communicable disease outbreaks affecting more than one municipality, assisting local health officers in the control of local outbreaks

5 Collection of epidemiological data and formulation of plans for the prevention of communicable disease outbreaks

6 A county health officer naturally would

promote various county-wide projects such as county laboratory service, toxin-antitoxin immunization, tuberculosis clinic service, etc.

7 The county health officer should visit all local health officers periodically for the purpose of familiarizing himself with the details of their work and advising and assisting them, calling them together as often as practicable and necessary for conference He should maintain intimate contacts with all practicing physicians, and through the county medical society—of which he should be an active member—and through his personal contacts endeavor to interest them not only in the public health projects but in practicing preventive medicine privately

8 The county health officer should conduct a continuous educational campaign, furnishing news and other articles to local newspapers, one purpose being to stimulate people to go to their own physicians for periodic health examinations, immunization against diphtheria, and other preventive treatment and advice He should endeavor to make some provision for the furnishing of such service to people unable to pay

Dr Brooks does not try to list the duties of the local health officer, for they are too numerous to warrant enumeration The local health officer should perform all the duties required of him by law which are not to be performed by the county health officer and such additional duties as may be imposed upon him as a deputy by the health officer "

PROFESSIONAL STANDARDS IN OPEN HOSPITALS

The maintenance of a high standard of medical and surgical services is a serious problem in open hospitals, especially those of the smaller communities, where every physician in the neighborhood has the privileges of all the services A patient entering any hospital has a right to expect to receive the best treatment which the community can afford—and this means that of the best physicians available in that section in any particular line If the hospital is approved by the American College of Surgeons, so much the stronger will be the implication that its standards are high in every line of treatment

When any branch of medicine is considered, nearly every community has some one doctor who excels his brethren in that particular line, even though he does not rank as a specialist If this man were consulted when a case of his specialty comes into the hospital, the problem of standards would be solved But the human equation is always to be considered There are the likes and dislikes of both the doctor and the patient, and an appealing manner and a smooth tongue must always be balanced against scientific skill

The problem of standards has two aspects 1, that relating to patients unassigned to any par-

ticular doctor, and 2, that relating to private patients

Appointments for the care of free or ward patients are usually given in rotation to doctors willing or desirous of filling the positions The system results in the choice not of the *one* best man, but of the *three* or *four* best—which necessarily lowers the average standard of the hospital

The question often arises whether or not the hospital authorities can have any control over a doctor in his treatment of his own private cases An overwhelming professional sentiment is developing that every physician who uses a hospital shall be subject to its rules and standards This means that he shall keep accurate records of his cases and his treatments, and shall permit their review and discussion by other members of the staff The day is past when a hospital patient is the private property of a doctor to be treated as he may wish Every doctor must conform to standards of which his associates are the judge The question of standards comes up the most frequently in connection with surgery, where skill and ultimate results are clearly open to all observers Who shall be permitted to operate? Shall any doctor who has the courage to operate

on an appendix be allowed to do so? This is an example of problems of standards which confront the governing boards of every open hospital

How shall authorities of a hospital settle the problem of standards of professional service? Possibly it would be better to ask how they may raise the standards, for no hospital can attain one hundred per cent of perfection in its standards and ideals. Two suggestions offer themselves

1 The appointment of a chief of staff in each department, medical, surgical, obstetrical, after the manner of the great city hospitals

2 Each department shall appoint a small committee which shall oversee the work of that department and judge it according to accepted standards. The advantage of this method is that the committee need not be composed of specialists, for any physician can judge the qualifications of a specialist and the results that he produces. Such a committee is well able to judge of the qualifications of a doctor who aspires to do major operations in surgery, and can dictate the con-

ditions under which he may operate. It might say, for example, that Dr. X may operate on a case of appendicitis if he will do so under the supervision of Dr. Y, who is known to have skill

The essential qualifications of the members of a supervising committee are stability of character, good judgment, and wise diplomacy. Every community has numbers of doctors who are credited with those virtues by the unanimous consent of their professional brethren

The execution of the plan of committee control of professional work will not be easy. After the consent of the doctors has been secured, the plan must be adopted by the board of trustees, and often by a third body—the women's visiting committee. Possibly the difficulty of securing the necessary cooperation makes the plan seem visionary. But in reply the question may be asked, "Who can judge and control standards of professional work in hospitals better than a representative group of the physicians who compose its staff?"

HYGEIA

The American Medical Association, representing the medical profession of the United States, has adopted the policy of educating the public in medical subjects, and it further leads the way by publishing *Hygeia*, a monthly medical journal for laymen. *Hygeia* has grown steadily in popularity and influence and its value is indicated by the frequent quotations which appear in the newspapers. It is a typical journal to place on the table of the doctor's waiting room, and on the reading table of every school and library

Physicians who are making their lists of Christmas gifts may well include *Hygeia*. A present of this journal will be especially welcome to school children who are compelled to study

hygiene and to undergo physical examinations by doctors and inspections by nurses. *Hygeia* will tell them what it is all about. The Journal is well illustrated and each number contains pages for small children. But *Hygeia* also carries many pages of more serious matter which is of wide interest to grown people

One subscription, regular rates	\$3 00
Two subscriptions, or one subscription for two years	\$5 00
Three subscriptions, or one subscription for three years	\$6 00
Each additional subscription	\$2 00

SEND YOUR SUBSCRIPTION NOW

LOOKING BACKWARD THIS JOURNAL 25 YEARS AGO

The following report of the Committee on Publication for the first ten months of this Journal's existence is taken from page 308 of the December 1901 issue

"The publication of the Association's journal—the New York State Journal of Medicine—was begun in January of the present year. A copy has been mailed each month to every member of the Association. Including the October number, 31,800 copies have been distributed. In addition a supplement was issued with the May number. Forty-six original papers were presented at the last annual meeting of the Association. The manuscripts of forty-four of these have been published

The expense connected with the monthly publication of the Journal, naturally, is of considerable interest. The estimated cost of twelve issues, ending with the December number, is \$1,950. From this is to be deducted the net receipts from advertising contracts, amounting to \$888, which reduces the total to \$1,068. The average net cost of each issue of the Journal, therefore, will be \$89. These figures compare very favorably with those connected with the publication of Volume XVI of the Association's Transactions, issued one year ago. The cost of 1,000 copies was \$1,633.99, which included printing, binding and delivery, of approximately \$1.64 per volume.



MEDICAL PROGRESS



Treatment of Local Infection—In an article in *Physical Therapeutics* for October, 1926, (xliv, 10) William Benham Snow considers infections associated mainly with pyogenic processes rather than types of infection found with serious constitutional symptoms from the outset. The value of hyperemia as a therapeutic agent is well established. It accelerates elimination, phagocytosis, and the tissue-producing processes in the body. The practical means of producing hyperemia which are available and valuable are reflected radiant light and heat from a suitable electric arc or incandescent bulb or bulbs, dry hot air, applied with suitable apparatus, and diathermy from a high frequency transformer. When surgeons cease to use hot moist dressings, which at best give only the effects of convective heat, with hyperemia in the skin only, the heat being carried away with the circulation without affecting the cellular tissues beneath the skin, and when they adopt the use of dry heat from the outset, they will have satisfactory results. An experience of twenty-five years with dry heat has demonstrated that this agent arrests the infectious process in all early cases, without fail. If an infection is detected within twelve hours, by the appearance of a persistent red spot, one or two hours' application of radiant light projected over the spot, as hot as can be tolerated, will terminate the trouble. Diathermy is especially indicated in the treatment of acute and subacute appendicitis, sinusitis, pneumonia, bronchitis, and pleurisy. The application is made with the same rules as in other types of heat administration, being limited to skin toleration. In infections about the face and head reflected radiant light is most valuable. Otitis media can be promptly relieved by the use of reflected incandescent light, the application being made for one hour daily until the discharge ceases. In acute cases paracentesis is not performed, light is applied twice daily for an hour each time. The ear recovers its normal condition in seven to ten days, which is a more favorable result than from paracentesis. Radiant light is effective in purulent and gonorrheal ophthalmia, and in erysipelas it has proved most satisfactory. In a large number of cases of erysipelas seen by the author there was no instance in which it failed to afford relief. One patient in *extremis* with septicemia following a surgical operation three weeks previously, showed a remarkable improvement after thirty minutes in the hot air apparatus, as evidenced by the skin hyperemia, temperature, and pulse,

and in ten days was convalescent. In the treatment of internal conditions diathermy is usually employed in conjunction with the x-rays. Heat, the r-rays, and ultraviolet light play an important rôle in the management of a class of cases which have been more or less neglected, and they may effect a cure such as has not been possible by other means.

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of the symptoms to those of the "acute abdomen" are so close that even the most conscientious surgeon may be trapped. The ghastly pallor of the patient, especially in artificial light, is mistaken for that of profound shock or internal hemorrhage, and when this picture is combined with a history of sudden agonizing abdominal pain and vomiting, and is accompanied by abdominal rigidity, the difficulty in diagnosis is occasionally insurmountable, unless one is in possession of the knowledge that the patient is the subject of an aplastic anemia. The explanation of the abdominal attack seems to be that during the catabolism of large numbers of erythrocytes the liver is called upon to excrete a prodigious amount of bile pigment. This is too concentrated to be held in solution and is precipitated in the form of "bile mud," which gives rise to severe biliary colic. This theory is supported by the findings in one of the two cases which the writer reports. In this case a diagnosis of gastric ulcer was made and laparotomy performed. The gall-bladder was found enormously distended, and when opened was found to contain thick black "biliary mud." In the second case the color index of the blood was taken and gave the typical reading for pernicious anemia, no operation was performed and the acute symptoms subsided.

Abdominal Pain in Children in Extra-abdominal Conditions—Alton Goldbloom says it is well known that abdominal pain is a rather common complaint in children, who are apt to refer any pain to the abdomen (*Canadian Medical Association Journal*, October, 1926, xvi, 10). Instances of moderate abdominal pain at the onset of a throat infection are in some epidemics extremely common, and are met with in influenza, measles, and scarlet fever. It is hardly conceivable that all these cases can be explained by the suggestion of Brennermann, namely, that an inflammation of the abdominal lymphatic nodes exists coincidentally with the throat infection, and therefore the pain has its origin in true intra-abdominal disease. It is more reasonable to infer that the abdominal pain is merely a remote echo of the trouble in the upper respiratory tract. Cases of throat infection, in which abdominal pain is encountered, can be divided into two groups. In the first, and by far the largest, group the pain is the first and the outstanding symptom, it is rarely accompanied by tenderness and almost never by rigidity. In these cases the pain subsides before the signs of the throat infection and there is no diagnostic difficulty. In the second group the pain occurs after the onset, and sometimes after the subsidence, of the throat infection, and tenderness,

rarely rigidity, is a feature. These cases could well fit with Brennermann's explanation of adenitis. In cases of intrathoracic disease, the abdominal symptoms may predominate, as with lower lobe pneumonia or with diaphragmatic pleurisy. Abdominal pain may also occur with right apical pneumonia and in empyema. Such cases are cited by the writer. The various pathways by which nerve impulses could be transmitted and interpreted as abdominal pain are discussed.

Alkalies in the Treatment of Functional Albuminuria—According to H. Meden it is only recently that we have learned the power of alkalies to reduce the amount of albumin in the urine of albuminuria, and von Hoesslin was the first to announce the fact although apparently his finds were not beyond criticism. Thus he realized that only in functional albuminuria does albumin disappear completely, while in the albuminuria of nephritis it can merely be reduced. In regard to functional albuminuria the generalization held good for the orthostatic, athletic, and other known causal types, as well as for those in which no cause was discoverable. The author has for the past two years been checking up the finds of von Hoesslin in the medical polyclinic service of Charité Hospital, Berlin, and has had opportunity to test 27 patients with albumin in their urine. Five were frankly nephritic and in this small material he obtained no reduction in the amount of albumin excreted by the use of alkalies. In the other and larger series of 22 patients, in whom no evidence of structural renal disease could be obtained by the usual tests, he was able to clear up the urine in all but four, merely by giving them a heaping teaspoonful of sodium bicarbonate three times a day, apparently with no adjuvant measures. Of the four exceptions three were found to be febrile tuberculosis patients and he was obliged to conclude that the disease had in some way attacked the integrity of the renal tissue. The fourth exceptional patient was apparently quite resistant to the alkali although no cause could be assigned. The author comments on the strangeness of the find, for physicians are used to giving alkalies in renal and other urinary abnormalities and often an attempt is made to get rid of the trace of albumin, as in insurance work, yet no one seems to have made this discovery until recently—*Zeitschrift für klinische Medizin*, Oct. 12, 1926 (vol. civ, Nos. 1-2).

Syphilitic Gastric and Duodenal Ulcers—Bernales and Bambaren of Lima report a series of seven cases of peptic ulcer seen over an interval of three years. The patients all recovered or

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versity of Freiburg, assisted by Vorländer and Jung, publishes a serial article on this subject in the *Muenchener medizinische Wochenschrift*, September 17 and 24, 1926. In the opinion of Opitz cancer is both a local and general disease. It is known that numerous substances have affinity for the tumor cell—we are positive in the case of iodine and reasonably certain for a number of metals and dyes—so he is not at all surprised that occasional cures follow the internal use of arsenic, selenium, copper, gold, lead, cerium, iron etc., either alone or in some combination. Non-specific protein therapy also seems to give positive results at times. Cancer is commonly recognized as having to do with some anomaly of metabolism and at present the opinion is that in place of an oxidation of the glucose a lactic acid fermentation results, which produces a local acidosis favorable to tumor growth and a reduced demand for oxygen. Cholesterin is regarded as a growth stimulant, lecithin as an inhibitor. The authors believe it possible to find a substance or plan of treatment which will cause a metaplasia of the highly toxic cancer cell into a more innocent type of epithelial cell. Recently they have tried out various sulphur combinations on the supposition that the tissues are lacking in sufficient sulphur, and also injections of glucose which exert a specific action in causing the disappearance of the tumor-glycogen while the same substance in normal tissues is undisturbed. Some of the indications, in addition to inhibiting cell growth or causing metaplasia, are removal of the acidosis by alkalization and restoration of metabolism to normal end-products. The authors have been unable to influence animal cancer permanently by means of eosin and selenium, cholin and others of the older tumoraffin substances.

The Treatment of Varicose Veins by Injection—The necessity for an efficient non-operative treatment of varicose veins is emphasized by the increasing number of quack remedies advertised in the lay press. The only treatment short of operation recognized in standard works on surgery lies in mechanical support. These facts led A. H. Douthwaite (*British Medical Journal*, September 25, 1926, ii, 3429) to experiment with the production of thrombosis in varicose veins by the method of Genevrièr. The solution used is composed of quinine hydrochloride, 4 grams, urethane, 2 grams, and distilled water 30 cc. A pneumatic tourniquet is applied with moderate pressure above the portion of the vein to be dealt with, and 0.25 cc. of the solution is injected into the lumen through a fine hypodermic needle. Perivenous administration is usually unnecessary, it is not, however, contradicted, provided only a few minims are introduced outside the vein. The puncture is

sealed with collodion, which may be removed the same night, and the injection repeated about two inches further up the vein. With very large varices the same areas may have to be injected two or three times. As a rule, however, one injection is sufficient for each two or three inches of vein treated. The author has treated 88 unselected cases of varicose veins in this way, with success in every instance, and no recurrences have as yet been observed. The thrombosis appears to be firm and adherent, and in a series of over a thousand injections has never given rise to embolic disturbances.

The Hashish "Jag"—E. Jöel and F. Frankel have been studying the action of five drugs from a relatively new angle, namely that of psychology and the psychoses. We now have a special branch of research under the name of pharmacopsychology which deals with drug intoxications as transitory psychoses or, as Kraepelin calls them, "insanity in miniature." The five drugs referred to comprise ether, cocaine, mescaline, kava kava, and hashish, but in the present article only the latter is discussed. One of the authors took the drug and the other studied the objective behavior while the experimenter also recorded his subjective sensations. Ten centigrams of a strong English extract caused after a short time a sensation of strangeness, of something inescapable, of foreboding, while weakness and anxiety replaced the normal sensations, and activity went into abeyance. One may give up to it or fight it, and if the former a perfect torrent of ideas, thoughts of old events which often had passed out of remembrance, unusual sensations, and emotional reactions beset one. These seem quite outside of the subject's ego and volition. Later there is a series of pictures and from the unconscious there well up experiences long forgotten. They may awaken interest, pleasure, laughter, or only pain and weariness. All of the experiences are compulsive, proceeding from without, and the subject may believe himself hypnotized or under the control of some other person. Every variety of psychopathology is experienced—illusions, splitting of personality, disturbance of time and space relations, and there is every shade and stage of consciousness represented. The complicated ego or personality is disintegrated and abstract logical thinking goes back to an archaic-prehistoric stage in which there is only a succession of images, as in dream states. We obtain new glimpses into myth and mysticism. There are several clinical types—the motor, delirious, and paranoid.—*Klinische Wochenschrift*, Sept. 10, 1926

improved under diet and antisyphilitic treatment. In at least five patients the lues was hereditary. The symptoms of pain and vomiting were marked and in four of the cases gastrorrhagia was prominent as a symptom. One patient had been subjected to gastroenterostomy after a diagnosis of ordinary peptic ulcer, his lesion suggesting a recurrence, this is the only case in which the authors were not certain of their diagnosis. Of the authors quoted who have reported similar cases the great majority are Latins—French, Italians, and South Americans. There are a few Germans but neither English nor Americans figure. It may or may not be only a coincidence that only one of the seven patients was of pure white blood, the others being Indian or, mostly, halfcastes. Of the seven, five presented gastric and two duodenal ulcers. To take one case at random, the third in order, the patient was a half breed Indian of 31 who had complained for the past two years. History of chancre at 21. His symptoms had been limited at first to pyrosis, flatulence, and pain with later supervention of hematemesis and melena. Pain developed within an hour after taking food. Aside from his indigestion his condition was fair. Reduction in the number of red cells may have been due to hemorrhage. The Wassermann was frankly positive and a diagnosis was made of syphilitic gastric ulcer. The bismuth picture suggested an obstruction at the pylorus. There was gastric retention of 45 cc only. The acidity was increased. The only treatment mentioned was a course of neosalvarsan, and atropine for the excess of acid. The patient remained in the hospital only about a month, after which he left of his own accord with all symptoms improved.—*Revista de la Sociedad de Medicina Interna*, July, 1926.

Experimental Superinfection of Human Syphilis—T Hashimoto, professor in the Japanese University at Mukden has inoculated twenty human subjects already known to be syphilitic with secretions containing spirochetes taken from chancres, papules, pustules, and gummata and with tissues containing the same organisms which were implanted in the skin. The spirochete was not actually demonstrated in the matter from pustules and gummata. In order to distinguish between living and dead cultures control inoculations were made at the same time with the same matter sterilized by heat. The lesions produced showed great variability but the author feels himself justified in asserting positively that superinfection of a syphilitic at any stage is in general possible, though there may be individual exceptions. The author differs from others who have worked in this field for he finds no correspondence between the character of the lesion produced by inoculation and the stage of the syphilis of the inoculated subject. There were

negative results in some of the cases and the author makes three types of positive results, the frankly positive, weakly positive, and incomplete, the latter being apparently non-specific. The inoculated subjects were naturally untreated during the period of experiment. Spirochetes were readily found in the inoculation lesions. The experiments of the author do not appear to differ in essentials from older work in the same direction but the viewpoint is not the same. The older experimenters studied the possibility of reinfection, the phenomenon of allergy of the skin, the possibility of transmission of tertiary syphilis, etc., while the author appears to limit his research purely to the problem of superinfection—*if a man is already frankly syphilitic can he be made more syphilitic?* The answer apparently is in the affirmative under certain circumstances.—*Bruxelles Médicale*, September 12, 1926.

The Symptom Complex of Hypotonia, Including Low Blood Pressure—Martini and Pierach attempt to outline this type of constitution in an article which appears in the *Klinische Wochenschrift* for September 24 and October 1, 1926. The organs to show the principal alterations, which are mostly functional, comprise the heart, blood vessels, abdominal musculature, and skin. The tone is relaxed with reduced efficiency. There are also anomalies of function in the organs of internal secretion, probably all of them, and of the vegetative nervous system. The picture of suprarenal insufficiency is occasionally striking. The authors believe that the muscles and nerves which are not under the control of the will are the ones involved in this habitus. The somatic picture associated with this functional one is the familiar asthenic habitus. One of the most striking characteristics of hypotonia is low blood pressure. One might anticipate that this type of constitution is a pure liability, but in the authors' opinion the reverse is the case. According to Barach the hypotonic is essentially long lived, which is borne out by statistics of large insurance companies of the United States. Thus while the actual mortality of all risks is 80 per cent of the expected, for patients with habitually low blood pressure it is but 35 per cent. It seems probable that the hypotonic does not live as fast as the average, his metabolism is slower, he conserves his vital energy better. In the clinic the hypotonic usually appears masked with some organ-system weakness which dominates the picture, especially digestive disturbances. He derives considerable benefit from substances which raise the blood pressure (caffeine) and from internal secretions—thyroidin, pituitrin, gonad extract, etc.

Recent Progress in Cancer Therapy—Professor Opitz of the chair of gynecology, Uni-

as to make it imperative that any physician accused shall be apprised fully and clearly of the wrong or dereliction of which he is accused and shall be given a full and complete opportunity to be heard in his own defense, either personally or by counsel or both. Any accuser, therefore, contemplating the preferment of charges against a physician, should bear these provisions in mind and should not proceed until he has been able to reduce to writing a clear statement of what the charges are and until such accuser shall have prepared himself or itself to sustain the charges, when called upon to do so, by competent legal evidence. No matter what the physician's dereliction may have been, the accuser need not hope to succeed unless he is able to reduce to writing a statement of what the charges are and unless he is prepared to sustain those charges by competent proof when called upon to do so. Ill-considered or half-considered charges lacking a proper foundation or not supported by the requisite evidence must be foredoomed to failure.

Disciplinary Powers of the Component County Medical Societies—Each component county medical society is governed by its constitution and its by-laws. In general the disciplinary powers of the component county medical societies may be divided into two branches: (a) the power to discipline its members and (b) the power to exclude from membership those unqualified for membership. As to the right to discipline its members, it should be remembered that the extent of the jurisdiction of such societies runs only to the censure, suspension or expulsion of the member from the Society. No county medical society has the power in itself to revoke a physician's license. For the particular powers of each county society, its constitution and by-laws should be carefully studied and scrupulously followed. The provisions of each, though all are similar in purpose and general effect, vary in phraseology. For the purposes of illustration the provisions of the By-Laws of the Medical Society of the County of New York in this respect are worthy of brief attention.

By Chapter VIII, Article 3 of those by-laws, the censors of the New York County Medical Society are given power to "take cognizance of all charges preferred against a member. Charges against a member shall be presented to the President in writing, and by him referred to the censors, who shall meet, examine the same and the evidence thereon."

Article 4 declares that "If the majority of the censors shall be of the opinion that the charges are well founded, they shall serve a copy of them upon the accused and call for his attendance on a given date before the censors

Of this meeting the accused shall have at least ten days' notice. At the time and place appointed, the accused shall be required to make answer to the said complaint, either in writing or verbally, and the censors shall proceed to a hearing of the case upon such charges and the answer thereto, and if no answer be interposed, upon the complaint alone. The censors may call as witnesses any member of the Society whose duty it will be to obey such summons and any member failing to obey a summons of the Board of Censors, without a satisfactory excuse, shall be liable to discipline." Article 5 of Chapter VIII reads "There shall be three degrees of discipline: censure, suspension and expulsion."

It is further provided that after the hearing of the charges the censors shall report their findings to the Comitia Minora at its next meeting. The Comitia Minora shall then consider the report, and if it finds the charges proved, it may censure or suspend the accused as in its judgment the offense demands, but if in its judgment the offense demands expulsion it shall recommend such action to the Society at a Stated Meeting. A three-fourths vote of the members present and voting, shall be necessary for expulsion."

Running through these provisions and qualifying them at every point are the essential requirements that the accused shall know what the charges against him are and shall have the right to be heard in his own defense and that he cannot be censured, suspended or expelled from the county society unless those essential rights are accorded to him in good faith and in a manner that is in conformity with full and complete justice. Provisions similar to these should be found in the by-laws of all of the various component county medical societies.

As to the power of the county society to exclude an unfit applicant from membership, again recourse may be had to the provisions of the By-Laws of the New York County Medical Society for the purposes of illustration. These are contained in Chapter XII of these By-Laws.

Article I of this chapter provides that "The Committee on Membership shall investigate and report on applications for membership received from the Secretary."

Article 2 provides that this Committee "shall meet within five days previous to each stated meeting of the Comitia Minora for the consideration of such applications for membership as may have been placed in its hands by the Secretary. Before reporting favorably upon any application for membership, the Committee shall be satisfied, by proof deemed sufficient by it, that the applicant has complied with the laws of the State of New York relative to the

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DISCIPLINARY POWERS AND FUNCTIONS OF THE STATE AND COUNTY SOCIETIES

There is no subject of greater importance to the medical profession and to the laity than the power to discipline erring members of the profession. This has long been recognized in the sister profession of the law and the grievance committees of the various bar associations have performed notable work in holding lawyers to a high standard of professional conduct and also in protecting their good names against unjustifiable attack.

The need for the statutory regulation of these powers with respect to doctors was recognized by the last legislature in its enactment of Chapter 834 of the Laws of 1926, by which a grievance committee was instituted and given statutory sanction. But certain disciplinary powers still reside in the various component county medical societies and in the State Medical Society. We shall therefore consider the subject of disciplinary powers from three aspects: first, the powers and duties of the statutory "Committee on Grievances", second, the disciplinary powers of the various component county medical societies, third, the disciplinary powers of the State Medical Society.

Powers and Duties of the Committee on Grievances—The statutory committee is given jurisdiction "to hear all charges against duly licensed physicians of this state" for the following shortcomings:

(a) Where a physician is guilty of fraud or deceit in the practice of medicine or in his admission to the practice of medicine,

(b) Where a physician has been convicted in a court of competent jurisdiction, either within or without this state, of a crime or misdemeanor,

(c) Where a physician is an habitual drunkard, or addicted to the use of morphine, cocaine or other drugs having a similar effect, or has become insane,

(d) Where a physician is guilty of untrue, fraudulent, misleading or deceptive advertising, or advertising that he can cure or treat disease by a secret method, procedure, treatment or medicine or that he can treat, operate and prescribe for any human condition by a method, means or procedure which he refuses to divulge upon demand to the Committee on Grievances,

(e) Where a physician undertook or engaged in any manner to procure or to perform any criminal abortion.

The power of the grievance committee extends to the revocation, suspension or annulment of the practitioner's license and to other discipline in accordance with the statute. Before the grievance committee can exercise any of these powers, the following conditions must have been complied with:

(a) Charges must have been preferred against the physician. These charges may be preferred by "any person, corporation or public officer" and they must be filed with the Secretary of the Committee on Grievances. The charges must contain a plain and concise statement of the material facts without unnecessary repetition, but not the evidence by which the charges are to be proved. It is a fundamental principle of justice which lawyers have long described by the term "due process of law" that no person can be deprived of his rights without being clearly apprised of the nature of his delinquency and the manner and respect in which he has transgressed and has been given an opportunity to be heard in his own defense.

(b) After charges have been received by the Grievance Committee, the accused must be given an opportunity to appear either personally or by counsel at the hearing, with the right to produce witnesses and evidence upon his own behalf, cross-examine witnesses and to "examine such evidence as may be produced against him and to have subpoenas issued by the said committee."

The powers then, of the statutory grievance committee, are separate and distinct from the powers of the various county medical societies or of the State Medical Society. It is a public body organized to hear and determine charges against any physician preferred by "any person, corporation or public officer." Thus any citizen has a right to prefer these charges. This language is so broad as to enable a component county medical society or the State Society itself to prefer the charges in any case.

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cietly shall also cease to be a member of this Society "

Section 46 gives the Board of Censors of the State Society "jurisdiction to hear and determine all appeals from decisions on discipline of component county medical societies or decisions of such societies which may involve the privileges, rights or standing of members whether in relation to one another or to the county medical societies or to this Society Any member of any component county medical society, feeling aggrieved by the decision of such society, may within three months after such decision *appeal to the Board of Censors of this Society* from the decision of such component county medical society by filing a notice of appeal with the Secretary of this Society and the Secretary of the component county society "

Section 47 provides that "any applicant for membership in a component county medical society who may have been excluded from membership in such society, may likewise appeal from the action of said Society excluding him All decisions shall be subject to appeal to the House of Delegates "

Section 48 provides that "The notice of appeal shall set forth in writing the name of the applicant, the name of such component county medical society and the date and substance of the decision appealed from, *and shall indicate the ground or grounds upon which such appeal is taken* "

Section 49 provides that "Upon filing a notice of appeal, the appellant and the component county medical society shall submit to the Secretary of the Board of Censors *all records, minutes, letters, papers and all written evidence including a digest of all testimony not stenographically reported relating to the matter* All data so submitted shall be confidential and privileged and shall be available only to the censors and on appeal, to the members of the House of Delegates "

Section 50 provides that "The Board of Censors shall consider the appeal on the data so submitted to it, and may affirm by a majority vote, modify or reverse by a two-thirds vote of the Censors present and voting, the decision so appealed from. *If, in its opinion, the taking of further testimony is advisable, the Board of Censors may summon witnesses and proceed to take such evidence in such manner as it may deem proper* and render its decision by a two-thirds vote of those present and voting, *which decision shall be binding until reversed or modified by the House of Delegates* "

Section 52 provides that "A party desiring to appeal to the House of Delegates from the decision of the Board of Censors shall, within

three months after such decision, file with the Secretary of this Society and the Secretary of the component county society a notice of appeal Such notice of appeal shall set forth in writing the name of the appellant, the name of the component county society, the date and *substance of the decision appealed from and the ground or grounds upon which such appeal is taken* "

Under Section 54 the House of Delegates is required to "consider and decide the appeal on the data submitted to it, and may affirm, modify or reverse the decision so appealed from Such decision of the House of Delegates shall be final and binding "

But even after the House of Delegates has affirmed the decision of the Censors, under general provisions of law the appellant would doubtless still have the right to a further review in the courts

Thus a person disciplined by a competent county medical society or excluded from membership therein has the right of appeal—first to the Censors of the State Society, second to the House of Delegates and finally to the courts These rights indicate and explain the necessity of having the records upon which action is taken in proper, complete and ample form This requirement would exist in the absence of specific provisions of the by-laws, but such provisions are clearly stated within the by-laws themselves, for it is provided that upon an appeal to the Board of Censors of the State Society, the county society which has acted upon the individual in question must submit "*all records, minutes, letters, papers and all written evidence including a digest of all testimony not stenographically reported relating to the matter* " In order to sustain its action, therefore, it is of the highest importance that each component county medical society should follow this requirement and should not act hastily or without adequate legal proof It should be prepared, when an appeal is taken from its decision, to substantiate its decision by evidence "The records, minutes, letters, papers and all written evidence including a digest of all testimony not stenographically reported" should be such as to substantiate, justify and support the action taken While the Board of Censors of the State Society has the power upon appeal to take further evidence and to summon witnesses, this does not relieve the particular county society involved from the burden of preparing and submitting upon the appeal, the evidence upon which its decision is based in such a way as to obviate the necessity of taking further proof The county society should be prepared, upon such appeal, to have its counsel or other representative present to explain and justify the

practice of medicine, and that such applicant is of good moral and professional character, standing and reputation, and that his admission would not be prejudicial to the best interests of the Society"

Article 3 requires that "The Committee shall make its report to the Comitia Minora at each meeting of the Comitia Minora"

Article 4 requires that "The Committee on Membership shall file with the Secretary of the Society *its reasons* for unfavorable action upon any applicant for membership"

These provisions and similar provisions of the other component county medical societies must receive a full, liberal and fair interpretation

A county medical society is not in the nature of a social club. The purpose of each of the county societies in general may be said to be that of regulating the practice of medicine and surgery and of aiding in securing the enforcement of the laws relating thereto and of contributing to the diffusion of true science, particularly the knowledge of the healing art, and to assist in the preservation of the public health. Thus, no county medical society would be justified in excluding an applicant from membership through mere whim or caprice, as might be done in the case of a purely social organization

The requirements for membership in the New York County Medical Society (continuing to use that as an example), are that the applicant must establish, by proof deemed sufficient by the Comitia Minora, that he "is of good moral and professional character standing and reputation, and that his admission would not be prejudicial to the best interests of the Society" Thus, good moral and professional character, standing and reputation are made essential qualifications for admission. The added requirement (found in the New York County By-Laws), that these facts of "good moral and professional character, standing and reputation" must be established by proof deemed sufficient by the Comitia Minora, must receive a liberal and fair and not a strained interpretation. The provision does not mean that the Comitia Minora is given the right to be arbitrary in its decision, to act upon mere whim or caprice. The interpretation that the courts would undoubtedly give to these words would be, not that the Comitia Minora might arbitrarily determine that the essential facts have not been established in a manner "deemed sufficient by it," but that they have not been established in a reasonable manner and in such a way as would be deemed

sufficient by a reasonable man. Every physician in good standing has, or should have, a laudable desire to become a member of his county medical society and, by virtue of this, a member of the State Medical Society. Membership in the latter carries with it important rights, among which are the right to legal defense in the event of the institution of an action for malpractice, and the right to take advantage of the liberal provisions of the group plan of insurance. These rights, therefore, should not be denied arbitrarily and without adequate cause and sufficient reasons. On the other hand, no physician whose moral or professional character, standing and reputation are not good, should be admitted to membership in these honorable bodies. The admission committees, therefore, of the various county societies have important functions to perform. They must, on the one hand, do justice to the applicants and on the other hand do justice to the Society and to the profession. When, therefore, an admission committee is of the opinion that the application of a given applicant should not be favorably acted upon, it should take the time and pains to ascertain and establish the definite facts upon which its conclusion has been reached, it should not act upon hearsay alone or upon a mere vague opinion that the applicant is an improper person, it should have definite, concrete and convincing reasons for its action and should prepare, collect, collate and preserve the evidence upon which those reasons have been based. Aside from the obligation to do justice, a further reason for this will be apparent when we consider the powers of the State Society.

Disciplinary Power of the State Medical Society—Section 1 of the State Society's by-laws provides that "The active members shall be members in good standing of the component county medical societies"

Section 2 provides that "Any member suspended or expelled from a component county society shall likewise be suspended for the same period or expelled from this Society. Any member suspended or expelled from this Society shall likewise be suspended for the same period or expelled from a component county society. His right of appeal to this society shall not be impaired nor shall such appeal prevent the carrying out of the judgment of the county society pending such appeal. Any member not in good standing in his county society shall not be a member in good standing in this Society, and any member ceasing to be a member of his county so-



NEWS NOTES



THE FIRST DISTRICT BRANCH

The First District Branch held its annual meeting on the afternoon of Wednesday, November 10, in Briarcliff Lodge, Briarcliff Manor, Westchester County. The attendance of 110 was the largest in the history of the Branch.

While the members were assembling, the opportunity was offered for visiting and forming acquaintances. Dr Arnold Jackson who had come from the Jackson Clinic in Madison, Wisconsin, to address the meeting, told a group how his grandfather had originated the clinic when he and his son, both surgeons in the Civil War, returned from the army and began the practice of medicine together in Madison. The son associated himself with other doctors in the group practice of medicine, and when his five sons had grown, he formed the organization known as the Jackson Clinic. Four of the sons are physicians and the fifth is the business manager of the institution.

The corporation in its present form was organized in 1910, and now employs 21 physicians each of whom is a specialist in some subject. The clinic has its own rooms and nursing staff, but while it does not maintain a hospital, the members of its staff are on the staffs of hospitals of the city and some are teachers in the University of Wisconsin.

Most patients at the clinic are referred to it by their family doctors. They are examined thoroughly by the several specialists of the staff, and after all needed laboratory tests are made, the patient is either referred back to the family doctor, or is sent to a hospital and put under the care of a member of the clinic.

Dr Jackson said that the plan of group practice was popular in the Middle West and that over 200 clinics similar to this had been organized. A regular meeting of an organization of representatives of the clinics in one section of territory had recently been held in his clinic, and a general meeting of all the clinics was held once a year.

Physicians in the East know of the group practice mainly through the clinics of the Mayo brothers and Dr Crile, and it is rather surprising that the plan is seldom adopted in the Eastern states.

The presence of Dr Edwin H Huntington, an obstetrician at Ossining, recalled original researches of his grandfather and great grandfather which resulted in the recognition of the form of mental derangement known as Huntington's chorea. The Huntingtons of the first and second generation had practiced medicine for seventy-

five years in Easthampton, Long Island, where the intimate history of every inhabitant was known from the days of founding the settlement in 1647. The members of the old families had intermarried for reasons largely financial, and thereby had intensified their hereditary characteristics. The father and son had preserved accurate records of about twenty cases of the disease which were presented by the grandson as his thesis on graduating from the College of Physicians and Surgeons in 1871.

The grandson, Dr George Huntington, practiced medicine successfully in Le Grange near Poughkeepsie. He avoided a city because he suffered intensely from asthma and was frequently incapacitated for weeks at a time.

A business session of the Branch was called to order about noon, and the following officers were elected for two years beginning at the close of the annual meeting of the State Society.

President, Dr Edward R Cuniffe, Bronx, First Vice-President, Dr George B Stanwix, Yonkers, Second Vice-President, Dr Charles D Kline, Nyack, Secretary, Dr Ralph O Clock, Pearl River, Treasurer, Dr John T Howell, Newburgh.

The members dined together at 12 30, and then assembled for a scientific session which lasted until 5 o'clock.

The first address was given by Dr N B Van Etten, of the Bronx, on the subject "The antiphtheria campaign in New York State." Dr Van Etten represents the Medical Society of the State of New York in the general committee composed of members drawn from all the public health organizations of the state. He reviewed the work accomplished throughout the state and urged the doctors to give toxin-antitoxin to the children of the families whom they treat.

The guest of the session was Dr Arnold S Jackson, of the Jackson Clinic, Madison, Wisconsin, who presented a paper on "The Diagnosis and Treatment of Diseases of the Thyroid Gland." Dr Jackson gave a simple, clear description of the varieties of goiter, and outlined the treatment. He also showed lantern slides of cases and made running comments which tended to fix the points which he developed in his paper.

Dr Jackson has consented to the publication of his paper in an early issue of this Journal.

The other numbers on the program were "The Obstetrical Case—Some new Developments," by Dr Alfred M Hellman, New York, discussion by Dr Wm P Healy. "Intra-cranial Hemorrhage in the Newborn" by Dr William Sharp.

action of the county society and to produce witnesses in support of its action should the Board of Censors deem such a course necessary or advisable

Running through all these provisions is the essential requirement that no person can be deprived of his rights without "due process of law"—without a full opportunity to be apprised of the charges against him and an opportunity to meet them on the merits

It is hoped that the foregoing discussion may clarify the situation in such a way that when the Board of Censors of the State Society is called upon to act on an appeal, it may do so in such a way as to do justice both to the accused and to the county society in question. Hasty or ill-considered action will tend only to defeat the proper aims, purposes and ideals of the medical profession of this State

TONSILLECTOMY—LUNG ABSCESS

The plaintiff in this action, a trained nurse about twenty-five years of age, was first seen by the doctor on March 31st, having been referred to him by another physician, with a history of frequent colds and some coughing. An examination disclosed that she was suffering from a low-grade bronchitis. By means of suction it was ascertained that there was pus in the tonsils. After the examination the doctor advised the performance of a tonsillectomy, which was done on April 29th under a general anaesthesia of ether. The tonsils were removed intact and the throat carefully examined by the doctor, his assistant and the nurse. The anaesthetist was one of the female staff of anaesthetists of the hospital, who had been trained and graduated from the hospital's course on anaesthesia. During the operation suction apparatus was applied continuously. There was no abnormal amount of bleeding.

Owing to a lung condition, the patient remained at the hospital a longer period of time than the normal after an operation of this nature. While at the hospital she was seen twice by the doctor.

About three weeks after the operation she telephoned the doctor that she had a cough. He referred her to the physician who had first attended her. About two months thereafter she reentered the hospital with a diagnosis of lung abscess. Upon her reentry into the hospital she was under the care of other physicians. She was immediately put to bed but was later placed on the sun porch. The doctor who performed the tonsillectomy did not attend or treat the patient at this time, except that he examined her throat and found it in good condition. She was thereafter examined by several physicians, who expressed a doubt as to the presence of a lung abscess. X-rays were taken and upon examination of the same it was believed that there was a lung abscess. The roentgenologist in interpreting the plates reported the condition as

bronchial pneumonia. The doctor had been advised by her attending physician that her temperature was normal and she was getting along very well. Upon the second occasion on which the patient was in the hospital, she remained for a period of about ten days or two weeks.

About nine months after the tonsillectomy the surgeon who performed the same was sued in an action of malpractice in which the complaint charged the performance of the operation on April 28th and that shortly thereafter, while the patient was suffering from the effects of the operation, she became afflicted with a long abscess and that the same was due solely to the negligence and carelessness of the defendant in the performance of his operation, in that he did not use the proper care, appliances and skill in operating upon the plaintiff.

During the pendency of this action the plaintiff took the deposition of a witness who was a former nurse at the hospital and was then residing in a foreign state. By this witness the plaintiff attempted to show that the defendant physician was negligent and careless in the selection of the anaesthetist and that the nurse who had administered the anaesthesia to the plaintiff was incompetent and unqualified to act as such. The plaintiff also, in her endeavor to establish a cause of action against the plaintiff, examined the defendant before the trial.

When the action was about to come on for trial the plaintiff's attorney sought to procure a settlement, first for a substantial sum, and when his efforts in that direction were unsuccessful, he then asked for a nominal sum, asking that some settlement be made so that at least he could be compensated for his services. All of his efforts with respect to settlement being a failure, he then consented to the discontinuance of the action and an order was entered to that effect.

of the A M A, and that a truthful account of his life could be written within five minutes, if occasion requires

These are some of the impressions that a visiting editor acquires in a brief visit to the building of the American Medical Association. But the object of the conference of secretaries and editors, more than the inspection of the building and the activities of the American Medical Association, was to enable the visitors to exchange information which they could apply in their home work in their own states. The conference was like the meetings of the secretaries of the county medical societies held in New York State early in the fall. As the reports of work done were presented by the several secretaries, the New York delegation noticed that the variance of conditions in the several states was equal to that in the counties in New York State, and that what was adapted to our state might not be suited to another. Still there was much of universal application, and something novel and good was likely to emanate from the small states as frequently as from the large ones. It might even be said that the smaller states had the advantage in originating new ideas, for they did not have to contend with the inertia of numbers and precedents.

Since a full account of the conference will be printed in the A M A Bulletin in the near future, probably the January number, only impressions of the more striking points will be given here.

The conference was opened with an address by our own Dr Wendell C Phillips, President of the American Medical Association. He was followed by Dr Daniel S Dougherty, Secretary of New York State Medical Society, who told of the organization and work of the District Branches and of the possibility of their development. Dr Dougherty later told of the organization of the Medical Society of the State of New York and how the Society conducts its business. His address will appear in the A M A Bulletin.

Dr Morris Fishbein told his opinion of some State Medical societies based on his visit to six, in which New York State was not included. The representative from Illinois said that all the district meetings of his state discussed four topics, (1) how to improve the organization, (2) what should be the minimum standard of a county society, (3) scientific service and supplying speakers for programs of county societies, and (4) lay education on medical topics, especially the enlistment of local talent in speaking and writing.

Dr Jabez H Jackson, of Kansas City, President-elect of the American Medical Association, gave a pleasing address on State Society activities. He spoke especially of the medical education of the public, and said that in Kansas City

a school was started in order to train doctors to speak to lay audiences. Twenty-five doctors were enrolled for a two weeks' course. Each doctor prepared an address which was criticized by a professor from the State University. The doctor then delivered it and the professor of the class discussed it and made suggestions for its improvement. One great object of the instruction was to get the doctor to make his remarks simple so that the lay audience could follow his ideas.

Dr Jackson illustrated his idea of how a doctor should address an audience by recalling an old book on etiquette which he bought when he started to make society calls. The book said that the way to make a good impression on a lady was to start a conversation on some topic that she likes, and when she becomes interested, to pick up his hat and go home. The time for a doctor to quit talking to a lay audience is while the listeners are still keenly desirous for more information. Don't spoil a good speech by making it too long.

Dr George Edward Follansbee, of Ohio, described the model constitution of state societies suggested by the special committee of the A M A. Several representatives of State Societies reported having adopted it with excellent results. Its provisions seem to be covered by the constitution of the New York State Society.

The part of the State Journal in medical organization was happily discussed by Dr F A Long, Editor of the Nebraska State Journal. He said that his Journal required the full time of the editor for one week in every month, and he advocated a paid editor for every State Journal. He used small news items, such as marriages and vacations, to interest the readers. His editorial pages were an open forum to which from two to four doctors were invited to contribute each month. He gave space to the women's auxiliary society. He supplied three cuts free to authors. A rather curious remark was that books were reviewed for only those publishers that advertised in the Journal.

Dr O S Wightman, Editor-in-chief of the *New York State Journal of Medicine*, described the policies and departments of the *New York State Journal of Medicine*. He was followed by Dr Gallagher, of Tennessee, who gave a rather doleful description of the difficulties of the editor of a journal of a small state. On the other hand, Dr C A Ray, of West Virginia, gave a glowing report of the growth of his state society when the dues were raised from four dollars to twelve, and the State Journal was made attractive in appearance and contents, especially in emphasizing the activities of the county societies.

Dr Bowers, Editor of the *Boston Medical and Surgical Journal*, said that the Journal was the oldest in the country and would reach the cen-

of New York, discussion by Dr E R Cunniffe, Bronx "Post Influenzal Disturbances of the Heart," by Dr Albert S Hyman, New York,

discussion by Dr O S Wightman, New York. It is expected that these papers will be published in this Journal

THE ANNUAL CONFERENCE OF STATE SECRETARIES AND EDITORS OF STATE JOURNALS

The annual conference of the Secretaries of State Medical Societies was held on November 19 and 20, in Chicago, Illinois, in the building of the American Medical Association, under the auspices of that organization. The editors of the State Medical Journals were also present and took part in the discussion. The representatives from the Medical Society of the State of New York were, Dr D S Dougherty, Secretary of the Society, Dr Orrin S Wightman, Editor-in-chief of the *New York State Journal of Medicine*, and Dr Frank Overton, Executive Editor.

The conference afforded the opportunity for meeting the leaders of the American Medical Association and the state representatives, many of whom have been attending the conferences for fifteen or twenty years and have taken an active part in developing the modern methods of medical society activities. It is both gratifying and inspiring to form the personal acquaintance of doctors who are known by their broad reputations, and especially to experience the friendliness and personal helpfulness of Dr Olin West, the Secretary and general manager of the Association, and of Dr Morris Fishbein, Editor of the *Journal of the American Medical Association*. The whole spirit of the conferees, both in and out of the meetings, was that of fraternity and equality.

The conference revealed the immensity and broadness of the work of the American Medical Association. The officers of the Medical Society of the State of New York, appreciating the importance and complexity of the task of keeping in touch with the medical societies of sixty counties, can comprehend the still greater work of leadership over the fifty constituent societies of the national body.

The physical plant of the American Medical Association is imposingly great. While one is not impressed with the size of the building itself, he begins to appreciate the greatness of the A M A as he views the long rows of offices, and is informed that the building houses about 400 employees. One is impressed still more when he inspects the printing plant, in which the ten publications of the Association are printed. It is a large piece of work to print the Journal, each issue with its 87,000 circulation and 150 pages. This is made possible by presses which use rolls of paper instead of sheets, and curved stereo-

typed plates instead of flat reciprocating forms. The printing facilities of the A M A are among the best in the whole country, and are exceeded by few establishments in New York State. The editors of the State Journals can fully appreciate the convenience and efficiency of having a complete printing plant always available and instantly accessible.

The great majority of physicians of the United States get their principal impression of the American Medical Association through its Journal, which is published weekly. Editors who have to get out monthly or semi-monthly journals can appreciate the amount of work required to prepare weekly issues of a Journal of the size and scope of that of the A M A. About two weeks' time are required for the preparation of each number, and before an issue is mailed, the forms for the succeeding issue are fully prepared. Each week the number of pages is determined and the departments in which the articles have a general interest regardless of the exact date of their appearance are assigned places in either the front or the back part of the Journal, leaving the center pages for news articles and others of a timely nature so that they may be set up at the last possible moment. Editors will appreciate the fact that necessity enters into the choice of the location of an article or department.

A visitor to the editorial offices is also impressed with the varied nature of the information that is carried by the Journal. Whence come the obituaries of doctors throughout the nation? A group of clerks sort newspaper clippings supplied by commercial bureaus throughout the country. From the same source come many of the news items that occupy the center of the Journal. Then there are the reports on new remedies which are supplied by the research department of the A M A. There is the information regarding quacks and medical frauds, which is quoted from the department which collects information regarding them and files sets of their literature and information regarding their promoters. Then there are departments which file lists and biographies of all doctors in the United States, all those licensed by state boards, and all medical students. It may gratify the pride of any doctor to know that all essential information regarding him is carefully preserved in the files.

THE NEW YORK ACADEMY OF MEDICINE

The new building of the New York Academy of Medicine at 2 East 103rd Street, New York City, was formally opened with a dinner given in the Waldorf Astoria on the evening of Wednesday, November 17th, to the twenty-two newly elected honorary fellows, and by appropriate addresses and a reception on the afternoon of Thursday, November 18, in the new building.

The Wednesday evening dinner was attended by over one thousand physicians and guests. Dr Samuel A. Brown, President of the New York Academy of Medicine, was Chairman, and Dr George David Stewart was toastmaster. Addresses were given by the Honorable James J. Walker, Mayor of New York, and by three of the newly made Honorary Fellows: Dr Harvey W. Cushing, Surgeon-in-Chief of Peter Bent Brigham Hospital, Brookline, Mass., Dr George de Schweinitz, Professor of Ophthalmology, University of Pennsylvania, and Dr William Sidney Thayer, Professor of Medicine, Johns Hopkins University.

The ceremonies of the formal opening of the new building on Thursday afternoon were held in Hosack Hall in the new building. Dr Samuel A. Brown, President of the Academy, described the service of the Academy in medical progress, Dr Arthur B. Duell, Chairman of the Building Committee, told the history of the new building and equipment. The diplomas of the Honorary Fellowships were given to those recipients who were present, and the citations of their accomplishments were read.

Following the formal exercises a reception and inspection of the building was held during which the rooms and corridors overflowed with members and their guests. A collation was also served.

In the evening the first meeting in the new

building was held, when Dr Michael I. Pupin, of Columbia University, gave the Carpenter lecture on the subject "Ionization and Chemical Reactions." Dr Pupin's address was a model of clearness and simplicity, and made plain a subject in which an audience usually becomes lost after hearing a few paragraphs.

All the addresses given during the ceremonies will be published in the *Monthly Bulletin* of the Academy.

The new building of the New York Academy of Medicine is spacious and conveniently arranged, and is in keeping with modern progress in medicine. The first floor contains an information desk, reception rooms large and small, and the main hallway to Hosack Hall, the large assembly room. The second floor contains section meeting rooms, and the hallway to the balcony of Hosack Hall. The third floor is given over to the Library and a reading room for the Fellows. A mezzanine floor also contains eight rooms for bibliographical research. The fourth floor contains section meeting rooms and the general offices of the Medical Society of the State of New York. The fifth floor contains the rooms of the New York State Journal of Medicine, and the New York County Medical Society. The sixth floor contains the administration offices of the Academy, and the rooms of the Public Health Relations Committee and the Bureau of Clinical Information.

Visiting physicians will be welcomed and calls for information will be answered, especially those regarding clinics and teaching facilities in Greater New York. The telephone of the Academy is Atwater 4700. The building is easily reached by the Lexington Avenue subway to 103d Street and by the Fifth Avenue busses.

DINNER TO DR. DOWNING

The dinner to Dr Augustus S. Downing, Assistant Commissioner of Education and Director of Professional Education of New York State on December 9 in the Hotel Commodore, New York, will have a two-fold object, first, as a memorial to the passage of the Medical Practice Act last spring, and second, in honor of the Commissioner who promoted the law with all the force of his character and position. Every physician in New York State will wish to hear Dr Livingston Farrand, Dr Nicholas Murray Butler, and Dr Wendell C. Phillips give radiant expression to the thoughts which he vaguely feels.

The following appeal has been made by those

who have served Dr Downing as medical examiners.

"The undersigned, during their period of service with the New York State Education Department were in daily touch with Dr Augustus S. Downing, Assistant Commissioner in charge of Professional Education. They learned to recognize him as a true servant of the state, continuously and indefatigably applying himself to endeavors which would inure to the benefit of the people through the medium of the professions. In his task he favored no friends and feared no enemies. Where standards were below the yardstick of accepted educational measurement, he

tury mark in 1928. He described some of the details of carrying on his Journal, which is a weekly.

Dr Bulson of Indiana, made a plea for the support of the A M A and for the freedom of action by the editor. "Get the right man" he said, "and then give him free and scope for his activities." But the doctor did not refer to the other side of the problem, that the wise editor would like to have some person or committee who should share the responsibilities of the publication.

Dr D F Sullivan, Secretary of the New Hampshire Medical Society, read a paper entitled "How can we secure closer cooperation with other professions and with the laity?" He described a meeting of the New Hampshire Medical Society which was held in connection with a conference of health officers, and meetings of lay public health organizations, thus making an assemblage of practically all the health forces of the state. The Medical Society had secured Dr Charles Mayo for one of its speakers, and had invited laymen to hear his address. Although the subject was a medical one, laymen said they were surprised that they could understand and enjoy him. He quoted this as a concrete example of cooperation with other organizations.

The discussion which followed centered around a single cooperating profession, that of nursing. Dr Wightman opened the discussion by suggesting the need for more helpers for the sick, rather than highly trained girls whose function is that of carrying out those doctors' orders which require great skill. A training of six months, or a year, should fit a girl to attend to the ordinary bodily needs of a sick person, and that was about all that was required in most cases of sickness. This plan was supported by several other speakers.

Dr W G Ricker, who presided as chairman of the conference, said that New York State was not improving the nursing situation in his home state of Vermont because the representatives of the New York State Examiners of Nurses were discouraging the training schools by refusing to recognize their graduates on grounds which he deemed insufficient.

The program of the closing session was de-

voted largely to periodic health examinations. Dr John M. Dodson, Executive Secretary Bureau of Health and Public Instruction of the A. M. A. said that 61,000 copies of the manual of the A. M. A. had been distributed to doctors, of which 51,000 had been sent through twenty-four State Medical Societies. There had also been distributed 295,000 copies of the examination form.

Dr Dodson also discussed the attitude of Life Insurance Companies toward the examinations of applicants and the insured. While some companies were trying the experiment of accepting applicants without a medical examination, others were offering annual examinations free to policy holders. The John Hancock Company was trying the experiment of sending a policy holder to his own family physician for an examination, and paying the doctor five dollars and at the same time not asking for a report on the insured, the theory being that a policy holder who takes the trouble to be examined by his own physician will follow the doctor's advice.

Dr Dodson thought that the principal stimulus to urge the people to take the examinations should come from departments of health.

Dr Wightman called attention to the fact that people are going to clinics for periodical examinations, and will do so in increasing numbers unless doctors prepare themselves to make better examinations than the clinic doctors do.

The representative from Wisconsin said that the State Society had sent twenty-five leading doctors to present the subject of periodic examinations to the county medical societies.

The most original suggestion came from the Oregon representative who proposed the formation of a national college of periodic medical examiners modelled after that of the American College of Surgeons. It was planned that the condition of membership should be the filing of 100 complete examinations. He said that the scheme was actively promoted by the Oregon State Medical Society.

The conference was a great success, because the seventy-five participants were practical men who filled their positions because of their love of the work and their adaptation for doing it.

WOMEN'S MEDICAL CENTER

An invitation is extended by the Women's Medical Association of New York City to all of the Medical women of the city and state of New York, to discuss and take action upon the proposal to form a Medical Center for women physi-

cians in New York worthy of the Empire State.

The meeting for organization will be held at The Women's University Club, 106 East 52nd Street, New York City, at 8 o'clock, December 1, 1926.

an inmate in a state hospital I did not know that at the time, but thought his answers to my questions very peculiar I left the tubes with the brothers, after having explained about them As the cultures were to be taken for three successive days, this meant that I had to return for them I had knocked off the oil pan under my car, by the boulders in the middle of the road which I had no way of avoiding After three days, I

went in a Ford, accompanied by the Health Officer, after the tubes The Ford traveled the road much better than my car I have just received a letter from the Health Officer, saying that Albany has requested more cultures from these people I am not a pessimist, but I am of the opinion that after this rainy weather the most suitable conveyance would be either an aeroplane or else to go by horseback"

BRONX COUNTY MEDICAL SOCIETY

A regular meeting of the Bronx County Medical Society was held at Concourse Plaza, on October 20, 1926, at 9 P M, with the President, Dr Cuniffe, in the Chair

The following candidates were elected Alexander J Habersack, Benjamin Karen, Hyman L. Rachlin, Frederick W Schaeffer

The Secretary presented the Report of the Nominating Committee Action will be taken at the Annual Meeting

The Chairman of the Committee on Legislation presented the Report of the Committee. He expressed the opinion that Governor Smith has done more for the medical profession than any previous Governor, and suggested the adoption of resolutions endorsing the Governor for re-election

The Chairman of the Building Committee reported regarding the recent developments and plans for a Home for the Society

The Chairman of the Committee on Public Health and Medical Education reported regarding the subject of Periodic Health Examinations The moving picture to be shown tonight is the first of the demonstrations the committee intends to present to the Society so that the doctor may have a full understanding of what is expected of him

A regular meeting of the Bronx County Medical Society, held at Concourse Plaza, on November 17, 1926, was called to order at 9 P M, the First Vice-President, Dr Louis A Friedman, in the Chair

Dr Friedman expressed the regrets of Dr Cuniffe at not being able to preside at this meeting on account of being invited to represent the Bronx County Medical Society at a Dinner given in celebration of the formal opening of the new building for the New York Academy of Medicine

Election of candidates being in order, it was moved and carried that the Secretary be instructed to cast one ballot for the following candidates for membership Joseph S Hory, Vincent C. Hughes, Martin I Kirschner, Moses Kopel, Leiber W Lerner, Joseph Nack, Della M Weintraub

in connection with these examinations The committee is working in conjunction with the Bronx Tuberculosis Committee on the matter of Periodic Health Examinations

The Chairmen of the Committees on Collection Agency and Medical Economics presented the reports of their respective committees

Resolutions endorsing the Honorable Alfred E Smith for re-election as Governor of the State of New York were approved by the Society

Resolutions of sympathy on the death of Dr Samuel J Littenberg were approved

Resolutions of sympathy on the death of Dr Mendel Zagat, ex-President of the Bronx County Pharmaceutical Association, were approved

A motion picture, "He Who Laughs Last," was presented, demonstrating the technique of periodic health examinations

The Scientific Program proceeded as follows

1 Radiography in Obstetrics (with lantern slides) Drs Hyman J Epstein and Abraham J Fleischer.

2 Pathological Conditions of the Cervix and Their Treatment. Dr Frederick C Holden

3 The Importance of Splanchnoptosis in Gynecology Dr Harry Aranow

Dr Friedman, for the Committee on Public Health and Medical Education, reported with particular reference to the subject of Periodic Health Examinations

Dr Lukin, for the Committee on Medical Economics, reported progress

Dr Jacobs, for the Building Committee, reported progress

It was moved and carried that the President appoint a Committee to consider the question of the establishment of a Relief Fund

The officers for 1927 suggested by the Nominating Committee at the October meeting were unanimously elected

A resolution was passed in memory of Dr Matthew S Goldman, recently deceased

This meeting having been designated as an Economic Meeting, the program proceeded as follows

strove for the desired uplift and knew no pause until the result sought had been accomplished

"Early in his career he recognized the shortcomings of the Medical Practice Act as it admitted of unsatisfactory effects, both to the public and to the medical profession. He planned to strengthen the law, thus to obviate its defects. For this purpose he outlined his program to those interested and in the face of forceful opposition both in the profession and among legislators, year after year he battled for what he believed would be a proper statutory adjudication of the items in dispute. He had had similar experiences in connection with the affairs of most of the other professions and because of his unswerving devotion to all that pertained to the ethical status and to the uplift of these various other groups, legislators, regardless of political affiliations, grew to know him as an altruist and they respected him accordingly, relying upon his judgment as to matters pertaining to his official duties.

"And so, when last year Dr. Downing once again appealed to the legislators and to the Governor in behalf of the bill sponsored by the Medical Society of the state, in spite of a centralized and coordinated opposition employing every method known to the lobbyist, the authorities enacted into law the present statute. The fight for the law has been won—the task of enforcing it is now delegated to those who will need the support of the profession. The outstanding figure in this effort has been Augustus S. Downing.

"The members of the medical profession, to-

gether with the members of the allied professions through a designated Committee, are planning to display a measure of their appreciation of Dr. Downing's valuable services to the state by giving a dinner in his honor at the Commodore Hotel on December 9th.

"We who have served the profession since medical education and medical licensure were divorced (1892), can safely aver that no man, in or out of the profession, has ever done more for medicine and for the public in its relation to the Doctor than Dr. Downing, and in honoring him we are but paying a merited award. We represent all of the administrations of the New York State Education Department as far as its association with the control of the practice of medicine is concerned, and throughout all of these years Dr. Downing has held our esteem as he has finally won our veneration.

"We hope that the demand for seats on the night of December 9th will be such that every nook and corner will contain the admiring face of one of our colleagues as the guest of the night is called upon to acknowledge the expressions of admiration for him and for his achievements."

MAURICE J. LEWIS,
OTTO VON HOFFMAN,
WM. J. DENNO,
WM. D. CUTTER,
HAROLD RYPINS

The dinner is open to all physicians and their wives. Tickets are \$7.50 each and may be obtained from Dr. James Pedersen, 40 East 41st Street, New York.

THE WORK OF A PUBLIC HEALTH NURSE

Those who think that a public health nurse has an easy time should read the following report of an experience which is by no means unusual in a rural district.

"I was requested by a health officer to get typhoid cultures of a certain family. It seems one member of the family who is married and lives elsewhere had been at this old homestead before contracting typhoid fever, and he had been released from the hospital without the usual release culture being taken. The state department had requested that cultures from all persons involved in this family, be taken. The Health Officer was under the impression that the family I was to visit consisted of two men, around 40 and 45 years of age, and an old mother, somewhere around 90 years of age. He assured me that the road was a very difficult one to travel, but this at the time did not seem an insurmountable obstacle. The road was a mountain one, fourteen miles inland. I believe that very few, if any, cars have ever been over it. My tires were too

large for the small rut, and I skidded out of track into stone wall. However, I got out of this all right and kept on going. It was impossible to turn around anyway. The health officer had drawn me a diagram, which I was to follow. I was supposed to leave my car at a certain point not far from the house and walk up to it. I intended to do this, but a dog up at the house, having heard my car, came tearing wildly down. I forgot to mention that I nearly skidded off a log bridge just before this, but having righted myself, I discovered just in time to avoid running into it, a piece of barbed wire stretched across the road to form a gate. I managed to unhook this and got on to where I was to leave my car. I did not dare get out of the car, the dog seemed so ferocious, but while I was debating what to do, one of the men came down from the house. I walked back up with him. There was just he and his brother there. The brother without a doubt, has T.B. and is also a mental case. I have been since told that he was formerly

LEWIS COUNTY MEDICAL SOCIETY

The fall meeting of the Lewis County Medical Society was held on October 19th at the Court House in Lowville. Dr Ringrose, the President, was unable to be present and Dr Paul H von Zierolshofen was asked to preside.

Dr D G Gregor, of Watertown, read a paper on "Toxemias of Pregnancy."

Dr Fisher, President of the State Medical Society, delivered an address, outlining the activities of the State Society and the opportunity the County Societies have of assisting in the promotion of State Society programs. He dwelt particularly on the advancement of the anti-diphtheria campaign.

Dr Lawrence, the Executive Officer of the State Society, talked on the opportunities of the County Society.

Dr Stanley W Sayer, District State Health Officer, offered the County Society the assistance of the State Department of Health in promoting a program for the conduct of Well-Baby Clinics, and suggested that the County Society urge the board of supervisors to fill the position of public health nurse.

A dinner followed the meeting, to which the physicians had invited the dentists of Lowville as their guests.

SCHOHARIE COUNTY MEDICAL SOCIETY

At the meeting of the Schoharie County Medical Society held in the Cobleskill High School Library, Tuesday, October 19, 1926, the following officers were elected for 1927:

President	Meleatus Bruce,
Vice President	Leland O White,
Treasurer	Le Roy Becker,
Secretary	Herbert L Odell,
Censor	Willard T Rivenburgh,

The following committees were appointed:

Legislative Committee—Henry R Bentley, Chairman, L R Becker, C L Olendorf and H J Wright

Public Health Committee—H L Odell, W S Pomeroy and Lyman Driesbach

Publicity Committee—C L Olendorf, Chairman, H R Bentley and J J Beard

On motion it was decided to reimburse the Delegate for his traveling expenses to and from the meeting of the State Medical Society and to allow him ten dollars additional toward his other expenses, in return for which he is expected to give our county society at its next meeting a brief summary of the proceeding of the State Society's meeting. LeRoy Becker

was elected Delegate with power of substitution.

The treasurer reported sixteen members in good standing and a balance of nearly one hundred dollars on hand.

The Society was duly organized for medical relief in disaster, with its president as chairman.

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After a luncheon at Hotel Augustin, the following program was given:

"The Private Practice of Preventive Medicine," Paul B Brooks, M D, Deputy Commissioner, State Department of Health, Albany.

"Results Following Gall Bladder Operations," E MacD Stanton, M D Schenectady.

"Child Welfare," by Dr Gilmartin.

The papers were all of great interest and most helpful and each was ably discussed.

HERBERT L ODELL, Secretary

ALLEGANY COUNTY—A CORRECTION

The address of Dr John A Conway, of Hornell, District Health Officer, before the Allegany County Medical Society, was reported on page 956 of the November 15 issue of this Journal.

Dr Conway writes to correct a misstatement. He says that his subject was "Does the cat flea convey *pohomyeltis*?" The article had read louse instead of flea.

Addresses: 1 'The History and Significance of the State Society Group Insurance Plan,' H. F. Wauwig, Esq. 2 'Some Phases of Mal-Practice Suits,' Robert Oliver, Esq. 3 'The Physi-

cian's Income Versus His Saving, An Economic Paradox' Harold Hays, M.D.

General discussion and questions followed the addresses. The discussion was closed by Messrs Wauwig and Oliver and Dr. Hays.

COLUMBIA COUNTY MEDICAL SOCIETY

The Columbia County Medical Society held its annual meeting on Tuesday, October 5th at the Worth House Hudson. During the business meeting, the following officers were elected:

President—J. W. Mambert, Hudson

Vice-Pres.—Burke Diefendorf, Copake.

Secretary—Chas. R. Skinner, Hudson

The Society considered the advisability of making an appeal to the Board of Supervisors for an appropriation for a county public laboratory. After considerable discussion, a committee was appointed to investigate the matter and report at a special meeting.

A committee composed of Dr. F. C. Maxon,

Dr. C. G. Rossmun and Dr. C. R. Skinner, drew up and presented to the meeting a resolution on the death of Dr. I. C. Washburn, of Chatham, in which the sympathy of the Society was extended to the late doctor's family with their appreciation of his merits as a physician and a man.

The retiring President, Dr. H. J. Moerling, of Valatie, delivered an address and during the scientific program papers were read by Dr. L. Van Hoesen on 'Gas Bacillus Infection' and by Dr. Edgar A. Vander Veer, of Albany, on 'The Use of Insulin in Surgical Conditions.'

ROCKLAND COUNTY MEDICAL SOCIETY

The September meeting of the Rockland County Medical Society was held at the New York State Orthopedic Hospital for Children at West Haverstraw. A larger attendance than usual was registered at the meeting. Dr. John J. Nutt, surgeon in charge of the hospital with his assistants, Dr. Urquhart and Dr. McLemore, read papers and demonstrated their ideas very clearly. On account of their work being

specialized, they answered many questions propounded by their visitors. The most serious part of their work was followed by a delightful entertainment given by the children of the hospital, and the day's program was closed by a delicious luncheon. Dr. Royal Sengstacken, President of the Society, presided at the meeting.

MONROE COUNTY MEDICAL SOCIETY

The regular meeting of the Monroe County Medical Society was held on October 19, 1926, with the President, Dr. A. G. Morris presiding.

Dr. S. J. Applebaum gave an address as a memorial to the late Dr. S. H. Rosenthal recalling his pleasing personality, his public spirit and his patriotic service in the World War.

Following discussion of the certified milk situation and the Milk Commission, on motion of the Society, the President appointed a special committee to study the question reporting at the annual meeting in December. The committee consists of Drs. A. S. Miller, chairman, S. J. Applebaum, S. Bayne-Jones, A. D. Kaiser and J. W. McGill.

On recommendation of the Committee by motion of the Society, the state-wide anti-diphtheria campaign was formally endorsed and the President was authorized to appoint an official

representative of the Society to act in conjunction with other organizations, medical and lay. Dr. Morris appointed Dr. C. G. Lenhart, Spencerport, N. Y., as this representative.

The scientific program consisted of a paper by Dr. B. T. Simpson, Director, State Institute for Study of Malignant Disease, Buffalo, N. Y., who gave a very interesting and illuminating résumé of the work done on the Cancer Problem, with special emphasis on an evaluation of the more recent experimental work along this line. Dr. Simpson stated his belief that there is no parasitic or specific bacterial cause of malignant disease but that the causative factors are chronic injury and hereditary tendency or lack of resistance of the tissue cells to injury. Dr. Simpson gave some very practical suggestions as to prophylaxis, education of the laity and treatment (page 979).

LEWIS COUNTY MEDICAL SOCIETY

The fall meeting of the Lewis County Medical Society was held on October 19th at the Court House in Lowville. Dr Ringrose, the President, was unable to be present and Dr Paul H von Zierolshoten was asked to preside.

Dr D G Gregor, of Watertown, read a paper on "Toxemias of Pregnancy."

Dr Fisher, President of the State Medical Society, delivered an address, outlining the activities of the State Society and the opportunity the County Societies have of assisting in the promotion of State Society programs. He dwelt particularly on the advancement of the anti-diphtheria campaign.

Dr Lawrence, the Executive Officer of the State Society, talked on the opportunities of the County Society.

Dr Stanley W Sayer, District State Health Officer, offered the County Society the assistance of the State Department of Health in promoting a program for the conduct of Well-Baby Clinics, and suggested that the County Society urge the board of supervisors to fill the position of public health nurse.

A dinner followed the meeting, to which the physicians had invited the dentists of Lowville as their guests.

SCHOHARIE COUNTY MEDICAL SOCIETY

At the meeting of the Schoharie County Medical Society held in the Cobleskill High School Library, Tuesday, October 19, 1926, the following officers were elected for 1927:

President	Meleatus Bruce,
Vice President	Leland O White,
Treasurer	Le Roy Becker,
Secretary	Herbert L Odell,
Censor	Willard T Rivenburgh,

The following committees were appointed:

Legislative Committee—Henry R Bentley, Chairman, L R Becker, C L Olendorf and H J Wright

Public Health Committee—H L Odell, W S Pomeroy and Lyman Driesbach

Publicity Committee—C L Olendorf, Chairman, H R Bentley and J J Beard

On motion it was decided to reimburse the Delegate for his traveling expenses to and from the meeting of the State Medical Society and to allow him ten dollars additional toward his other expenses, in return for which he is expected to give our county society at its next meeting a brief summary of the proceeding of the State Society's meeting. LeRoy Becker

was elected Delegate with power of substitution.

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THE DAILY PRESS



TARDINESS OF PHYSICIANS

Are physicians habitually late in keeping their appointments? They are, according to the following editorial in the *New York Sun* on November 11th

"Unpunctuality has come to be one of the physician's undisputed privileges. He is just as cordially welcomed when he appears half an hour late as if he had been on time. He is quite unashamed. Patients may be nervous, watchers solicitous, but a shower of grateful smiles washes away the suspense when the doctor's presence is assured. He knows he will never be blamed for being tardy. He has earned the right.

"But how? The world expects all the rest of its practitioners to be on time. Nobody overlooks half an hour's delinquency in them. Who would tolerate a lawyer habitually late at his appointments? A sharp word would bring a dilatory functionary of that profession up with a short stop. All the world is, however, indulgent to the physician.

"Some of his delays are excusable. Patients may require more time than was expected. They may not be at once accessible. One delay extends right along the line, so that day the doctor is

more certain than usual to be late after the initial pause. Yet he has not always such an excuse.

"Patients have learned what a movable feast office hours are. They esteem themselves fortunate if they get in and out of the office with comparatively little delay. If they are solvent, conscientious patients it rarely happens that the doctor speeds them on their way.

"When making his round of professional calls the doctor does not even hurry himself. He may linger to tell the patient another joke or to chat with the family. His bedside manner, whatever it happens to be, must be maintained. Unpunctuality is a part of the professional deportment of so many doctors that they would not part with it at any price. It may be that patients have come to look upon his tardiness as one of the evidences of a physician's capacity and would not have him prompt. The present danger of such a startling innovation seems slight. The doctor has no idea of being on time."

This editorial is evidently intended to be taken seriously, and is probably based on some unpleasant experience of the newspaper writer. However, it is of value to doctors for it reveals their status in the eyes of at least a part of the public.

WHAT INSANITY IS AND IS NOT

The newspapers have given wide publicity to a pamphlet issued by the National Committee on Mental Hygiene, 370 Seventh Avenue, New York City, stating the popular misconceptions of insanity as contrasted with the ideas of modern psychiatrists.

The following eleven misconceptions are listed, and after each one the modern attitude of the medical profession is given.

1—"That insanity comes suddenly."

"Insanity develops gradually over shorter or longer periods of time."

2—"That once insane always insane."

"Many of the insane are restored to health after a period of hospital treatment."

3—"That insanity is a disgrace."

"Insanity is a condition no more to be ashamed of than pneumonia or a broken limb."

4—"That insanity is an unfortunate visitation to be regarded with resignation and fatalism."

"Insanity is a mental disease and should receive medical attention, just as tuberculosis, cancer or other physical conditions."

5—"That mental disease is incurable."

"Many persons with mental disease are being cured today and restored to health and normality."

6—"That asylums for the insane are dreadful places and that admission to them rings down the curtain on the lives of the victims."

"Our asylums are being turned into hospitals in which the insane receive medical care and treatment, and from which between 25 and 40 per cent are discharged recovered or improved."

7—"That emotional shock, the loss of dear ones, disappointment in love, economic loss, and other human misfortunes cause insanity."

"Personal misfortunes and tragedies are frequently the precipitating causes of insanity, but that the accumulation of a variety of factors inherent in the progressive

life experience of the individual is really responsible for upsetting mental balance and bringing on mental breakdowns"

8—"That insanity is a specific disease entity"

"Insanity is a convenient term used by the courts to denote irresponsibility in the eyes of the law, and that there are many different kinds of mental disorder just as there are many kinds of physical disorder"

9—"That nobody can guard against mental disease"

"There are usually danger signals and symptoms of an approaching breakdown

that can be recognized and medically dealt with"

10—"That a person is either sane or insane."

"There are different degrees of mental health, just as there are varying degrees of physical health"

11—"That 'nervous breakdown' is a disease of the nerves"

"Nervous breakdown is in reality a mental condition in which there is seldom anything organically wrong with the nervous system"

Physicians will find this list of value in treating psycho-neurotic patients

RABIES

A denial of the existence of rabies in dogs and human beings sometimes appears in the newspapers and magazines, though less often than in former years. The *New York Herald Tribune* of November 22 prints a letter which is typical and follows the old argument that the writer has never seen a mad dog and therefore there is no such animal.

The writer also argues against the preventive vaccination of dogs, and says that ordinances requiring it are passed at the instigation of veterinarians who get five dollars per dog and make more money by that work than by all their other practice. He then discusses the passing of personal liberty and says "soon we shall be unable even to afford safe shelter to man's only friend, the dog"

Balanced against this article is one entitled "A case of Human Rabies" printed in the *Weekly Bulletin* of the Department of Health of the City of New York of November 13th. This was the first case of human rabies in New York City, in more than three years.

The article refers to the attempt of the Department of Health to educate the people regarding rabies and says

"Since early in January and thereafter, from time to time, the Department of Health has issued warnings on the prevalence of dog rabies in New York City. Repeatedly the attention of the medical profession and the public at large has been called to the menace of this situation. Warnings have been issued to all dog owners to muzzle their animals and to keep them on a leash. Instructions on the care of animals suspected of rabies were published through our official communications and through the press. And the importance of treating those bitten by rabid or sus-

pected animals with anti-rabic vaccine has been repeatedly emphasized"

The article refers to the prevalence of rabies and to the increase in the number of dog bites in New York City and vicinity. The City of White Plains has declared a quarantine against dogs and has spent a special appropriation of \$3,000 in anti-rabic work and is asking for more money. Dogs have been proved rabid in Nassau County. Fortunately, most persons who are bitten go to a physician at once, and the doctors almost always give them preventive inoculation. However, now and then the inoculations are refused, as they were in the case reported by the Department of Health.

The case was a boy aged ten, who was attacked by a stray chow dog on August 14th and was bitten on the arm, face and thigh. The preventive inoculations were refused, and on August 21 symptoms of rabies appeared. Death occurred on the seventh day. The dog which did the biting wore a license number and its owner made the usual excuse that the dog had always been well and kindly and had always been muzzled when it was in the street! The article concludes

"This case of human rabies brings to the fore again the urgent necessity of enforcing the laws on dogs. It impresses us with the necessity and wisdom of widespread, universal anti-rabies vaccination of dogs, the advisability of requiring evidence of such vaccination as a condition for licensing, the destruction of all dogs, vaccinated or unvaccinated, that show a vicious character, and the ridding of the streets of all stray dogs. The Commissioner has called a conference of interested individuals to consider the scientific and practical aspects of the anti-rabic vaccination of dogs. We expect to report on this conference in the near future."

BOOKS RECEIVED

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from this column will be made for review, as dictated by their merits, or in the interests of our readers.

- SURGICAL CLINICS OF NORTH AMERICA** Volume 6 No 4 August, 1926 (Chicago Number) Published every other month by the W B Saunders Company, Philadelphia and London. Per Clinic Year (6 issues) Cloth, \$16 00 net, paper, \$12 00 net.
- MODERN CLINICAL SYPHILOLOGY** By John H Stokes, M D Octavo of 1144 pages, with 885 illustrations Philadelphia and London, W B Saunders Company, 1926 Cloth, \$12 00
- PROBLEMS OF HUMAN REPRODUCTION** By Paul Popenoe. 12mo of 218 pages Baltimore, The Williams & Wilkins Company, 1926 Cloth, \$2 50
- YOUR TONSILS AND ADENOIDS** What They Are and How to Take Care of Them By Martin Ross, M D 12mo of 132 pages, New York and London, D Appleton & Company, 1926 Cloth, \$1 50
- WHY INFECTIONS?** In Teeth, Tonsils and Other Organs By Nicholas Kopeloff, Ph D, 12mo of 182 pages, with 16 illustrations New York and London, Alfred A. Knopf, 1926
- A HANDBOOK OF RENAL SURGERY** By F McG Loughnane, F.R.C.S. Octavo of 210 pages with 46 illustrations New York, Longmans, Green & Co, 1926 Cloth, \$3 75
- OUR DOCTORS.** A Novel of Today By Maurice Duplay 12mo of 279 pages New York and London, Harper & Bros, 1926 Cloth, \$2 00
- THE HUMAN BODY** By Marie Carmichael Stopes, Sc.D. Octavo of 268 pages, with 53 illustrations and color plates New York and London, G P Putnam's Sons, 1926 Cloth, \$2 50
- LIGHT TREATMENT IN SURGERY** By Dr O Bernhard Octavo of 317 pages, 105 illustrations London, Edward Arnold & Co, New York, Longmans, Green & Co, 1926 Cloth, \$7 50
- HYDROGEN ION CONCENTRATION** Its Significance in the Biological Sciences and Methods for Its Determinations By Leonor Michaelis, M D Volume I Principles of the Theory Octavo of 295 pages with illustrations Baltimore, The Williams & Wilkins Co, 1926 Cloth, \$5 00
- INTERNATIONAL CLINICS** Edited by Henry W Cattell, A.M., M D Thirty-sixth Series, Volume III Octavo of 310 pages, with illustrations Philadelphia and London, J B Lippincott Company, 1926
- LIFE INSURANCE MEDICINE.** A Study of Some of Its Problems and Their Relation to Clinical Medicine By Members of the Medical Department of the New England Mutual Life Insurance Company Volume I Octavo of 219 pages with illustrations Boston, New England Mutual Life Insurance Co, 1926
- THE FINER DIAGNOSES OF ACUTE BRAIN INVOLVEMENTS** Inclusive of Syphilis and Brain Injury By J Victor Haberman, A.B., M D Octavo of 116 pages New York (1926), (Monograph Medical Journal and Record)
- THE ABDOMEN IN LABOUR.** Being a General Practitioner's Clinical Study of the Parturient Abdomen By Norman Porritt, M.R.C.S., L.R.C.P. (Lond.) 12mo of 76 pages, with 20 illustrations London and New York, Oxford University Press 1926 Cloth, \$1 75 (Oxford Medical Publications)
- THE CARRIER PROBLEM** By K. C. Paul, M.B.B.S. 12mo of 102 pages. London and New York, Oxford University Press, 1926 Cloth, \$1 75 (Oxford Medical Publications)
- PRINCIPLES OF DIAGNOSIS AND TREATMENT IN HEART AFFECTIONS** By Sir James Mackenzie, M D, and James Orr, M B, Ch B Third Edition Octavo of 242 pages with 35 illustrations London and New York, Oxford University Press, 1926 Cloth, \$3 50 (Oxford Medical Publications)
- HISTOLOGICAL TECHNIQUE.** For Normal Tissues, Morbid Changes and the Identification of Parasites By H M Carleton, M A, B Sc., D Phil Octavo of 398 pages with 17 illustrations London and New York, Oxford University Press, 1926 Cloth, \$5 00 (Oxford Medical Publications)
- THE PATHOLOGY AND TREATMENT OF DIABETES MELLITUS** Second Edition By George Graham, M D 12mo of 230 pages with 26 illustrations London and New York, Oxford University Press, 1926 Cloth, \$2 75 (Oxford Medical Publications)
- THE HEART** By Alexander George Gibson D M, F.R.C.P. 16mo of 108 pages, with 15 illustrations London and New York, Oxford University Press, 1926 Cloth, \$1 50 (Oxford Medical Publications)
- OBSTETRICS** By John S Fairbairn, M D 16mo of 221 pages, with 29 illustrations London and New York, Oxford University Press, 1926 Cloth, \$1 75 (Oxford Medical Publications)
- OBESITY** By Leonard Williams, M D Octavo of 171 pages, with 20 illustrations London and New York, Oxford University Press, 1926 Cloth, \$3 35 (Oxford Medical Publications)
- HUNTER TOP'S DISEASES OF THE EAR.** Second Edition. Revised and Largely Rewritten by George C. Cathcart M A, M D 12mo of 333 pages, with 87 illustrations London and New York, Oxford University Press, 1926 Cloth, \$3 50 (Oxford Medical Publications)
- SURGICAL CLINICS OF NORTH AMERICA.** Vol 6 No 5 October, 1926 (Mayo Clinic Number) Published every other month by the W B Saunders Company, Philadelphia and London Per Clinic Year (6 issues) Cloth, \$16 00 net, paper, \$12 00 net
- ENZYMES, Properties, Distribution, Methods and Applications** By Selman A Waksman, M S, Ph D and Wilburt C. Davison, M A. M D Octavo of 364 pages Baltimore, Williams & Wilkins Co, 1926 Cloth, \$5 50
- HYGIEIA or Disease and Evolution** By Burton Peter Thom, M D 16mo of 107 pages New York, E P Dutton & Co, 1926 (Today and Tomorrow Series)
- CAVERNOUS SINUS THROMBOPHLEBITIS and Allied Septic and Traumatic Lesions of the Basal Venous Sinuses** By Wells P Eagleton, M D 12mo of 196 pages, illustrated New York, Macmillan Company, 1926



BOOK REVIEWS



ELECTROTHERMIC METHODS IN THE TREATMENT OF NEOPLASTIC DISEASES Designed as a Practical Handbook of Surgical Electrotherapy for the Use of Practitioners and Students By J DOUGLAS MORGAN, B.A., M.D. 12mo of 172 pages, with illustrations Philadelphia, F. A. Davis Company, 1926 Cloth, \$2.50

A concise monograph in which the various methods of electrothermic therapy are clearly outlined and explained. This comparatively new type of surgery is in its infancy and in many ways appeals to reasoning as preferable to the older surgery which seems to be striking a balance and its virtues more properly evaluated.

The author does not claim electrocoagulation or desiccations is a cure-all but successively discusses the diseases for which it is preeminently adapted. The heretofore rather confusing terms applied to this type of treatment are well explained so that no longer is "radio-knife" to be confused with endothermy or desiccation.

No claim to originality is made but its object is well attained, namely—"a short account of the means by which desiccation and coagulation are produced and the manner of their application."

The author recommends in many cases supplemental treatment with X-Ray and radium especially when deep malignancy and metastases are present. The subject is well and honestly presented and appears to be the first book published dealing exclusively with electrothermic methods

MILTON G WASCH

CARBOHYDRATE METABOLISM AND INSULIN By JOHN JAMES RICKARD MACLEOD F.R.S., M.B. Octavo of 357 pages with illustrations London and New York, Longmans, Green and Company, 1926 Cloth, \$6.00 (Monographs on Physiology)

There has been no book previously written on this subject which so adequately covers the field. The introductory part of the book reviews the steps incident to the discovery of insulin in such a form as to be clinically usable in a safe way. To each investigator credit is given for what the author feels he really did. This part is truly pleasing, as the counter claims that appeared some time back are so presented with references that anyone who cares to study the matter has the way made easy. After reading this part of the book, one is impressed with the fact that an entity made popular is often not new, even the name for it.

Anyone treating diabetes mellitus should have at his command data which will enable him to have a comprehensive knowledge of the physiology of the insular tissue of the pancreas. The data are well presented in this book. Although it is well established what can be accomplished by the use of insulin, the method of the accomplishment is not settled. The author points out the ability of the normal insular tissue to respond to whatever carbohydrate load is placed on it.

Not only is the book an excellent aid to the physician caring for the sick, but it is a manual for investigators in the problems of diabetes mellitus as the fields needing most study are clearly surveyed.

J ARTHUR BUCHANAN

LOCAL ANESTHESIA IN OTOLARYNGOLOGY AND RHINOLOGY By JAMES JOSEPH KING, A.B., M.D. Octavo of 205 pages, with 21 illustrations New York, Paul B. Hoeber, Inc., 1926 Cloth, \$5.00

This volume deals with the subject in three different parts. Part one is devoted to local anesthesia, technique in otolaryngology and rhinology. Part two concerns itself with the reports of the committees of the American

Medical Association on the toxicity, advantages and disadvantages of the various local anesthetics in nose and throat work. Part three is a tabulation of forty-three deaths reported from the use of local anesthesia in this field. The tabulation is in the form of a packet which affords easy reading and study.

The author has described fully, cocaine, novocaine, butyn and epinephrin. The technique which the author uses and that of other operators is indicated in detail.

A chapter on the synergistic action of morphine, magnesium sulphate and novocaine in nose and throat surgery is included. This is a new phase of local anesthesia whose value remains to be proven. It has given the author excellent results in local tonsillectomy.

The committee reports, as given in part two, are interesting and instructive. These reports contain recommendations that will prove of value to all who use local anesthesia. These reports are brought up to date and are edited by Dr. Emil Mayer and prefaced by Professor Robert A. Hatcher.

The volume is to be highly recommended to all otolaryngologists

B. H. ABRAHAMSON

INTERNATIONAL CLINICS Volume 1 Thirty-Sixth Series, 1926. Octavo of 309 pages, with illustrations Philadelphia and London, J. B. Lippincott Company, 1926

The two most interesting contributions to this number are the one on Massive Collapse of the Lungs, by Gwyn, and the one on Nephrosis, by Mason. These articles are both well presented, and the one on nephrosis particularly valuable because it covers the life history of a case which was well studied, and the studies seem to upset some prevailing theories.

Under "Medical Progress" a case of so-called "Silent Diabetes." It is a very rare thing for a patient with diabetes mellitus to have a very low blood sugar, when not taking insulin, or even with that medication unless an overdose has been given. This case of silent diabetes is probably a case of something else. The information presented under the general heading of progress is in reality a good review of the literature on the subjects considered, and all medical literature certainly does not represent progress, in fact, at times progress is retarded by certain articles.

J ARTHUR BUCHANAN

PITFALLS OF SURGERY By HAROLD BURROWS, C. B. E., M. B., B. S., F. R. C. S. Second Edition William Wood and Co., New York, 1925 Price \$4.50

Much valuable information can be acquired from a careful study of the mishaps occurring in the course of one's surgical practice. Conscientious acknowledgment of our surgical failures, with deliberate notation for future reference, of the determining factors in such cases and an honest appreciation of our culpability or responsibility, is bound to insure an improvement in results.

"Pitfalls of Surgery," is a most interesting and valuable contribution to current surgical literature. The second edition, recently published, is well arranged, readable, and covers a wide field of surgery. Essentially practical and helpful, it will be a stimulus to the surgeon young or old.

The author, Mr. Burrows, a widely known teacher of surgery, experienced by virtue of years of busy surgical practice, presents the facts in his cases so logically and convincingly that the reader readily grasps the surgical principle involved and cannot do otherwise than be impressed.

T. M. B.

SOME ENCOURAGEMENTS IN CANCER SURGERY By G GREY TURNER, F.R.C.S. (Eng.), Honorary Surgeon Royal Infirmary, Newcastle-upon-Tyne. William Wood & Co, New York, 1925 Price \$3.50

In "Some Encouragements in Cancer Surgery," G Grey Turner has presented the profession with a very readable, interesting and helpful monograph. This little book of 75 pages contains the substance of a lantern demonstration before the Surgical Section of the Royal Society.

The arrangement of the material is regional and includes cases of cancer of the rectum, large bowel, stomach, breast, bladder, mouth, etc. The author's purpose is to call attention to a brighter side of cancer surgery. He relates some very remarkable recoveries, some unexpected after local operation, upon apparently extensive, adherent and infiltrating growths. The diagnosis in these cases was confirmed by microscopic examination of the growth following its removal and examination of the slide and section at the time of the follow-up examination. The illustrations of specimens and microscopic sections are complete and convincing.

Mr Turner is emphatic that the outlook for patients suffering from malignant disease is brighter than usually supposed. He insists on vigorous and thorough surgical attack as the best chance for cure providing there is no unequivocal evidence of dissemination.

The book strikes an optimistic note and coming from one who speaks with the authority commensurate with a rich and varied experience is a most valuable contribution to the literature on cancer. T M B

A COMPEND OF OBSTETRICS Especially Adapted to the Use of Medical Students and Physicians. Revised and Edited by Clifford B Lull, M.D. Tenth Edition. 16mo of 283 pages with 84 illustrations. Philadelphia, P. Blakiston's Son and Co., 1925 Cloth, \$2.00 (Blakiston's Compendis)

Brought up to date, this popular Vademecum of old and young practitioners has again made its appearance in the form of a revised edition. In this revision, a number of additions have been made, including a resumé of Potter's Version. It has many illustrations. Its brevity and up-to-dateness recommend it to those wishing to make a rapid review of the subject.

L. KOEMPEL

L'ANATOMIE EN POCHE. By VICTOR PAUCHET and S. DUPRET. 12mo. of 316 pages, with 297 plates. Paris, Gaston Doin & Cie, 1926 Paper, 25 Francs. Dr Pauchet is a French surgeon well known to

American visitors to Paris. As a teacher of anatomy and operative surgery he conceived the idea of making his notes and dissections permanent through the drawings of Dupret.

The "pocket anatomy" here reviewed is the result of this coalition and it must be said that the result is quite satisfactory. It is a text book without text, a series of 297 plates made from drawings of great clearness, well colored and explained by the connection of the tissues with the anatomical term by means of dotted lines. The word "atlas" applied by the authors to their work is self explanatory and gives the exact idea of the nature of the book, namely a combination of drawings and terms—nothing more.

WM HENRY DONNELLY

THE BACTERIOPHAGE AND ITS BEHAVIOR. By F d'HERELLE, M.D. Translated by GEORGE H SMITH, Ph.D.

Octavo of 629 pages. Baltimore, Williams and Wilkins Company, 1926. Cloth, \$8.00

Those who have not read d'Herelle's previous works will find in this latest volume a complete history of his researches on the bacteriophage. It is a fascinating story beginning with an accidental observation made in 1909 while studying an epidemic among locusts in Mexico. For a time he followed a false trail, then in August, 1916, in Paris he found that the stools of a patient convalescing from Shiga dysentery contained something which dissolved dysentery bacilli. Others had noted similar lysis of bacteria but it remained for d'Herelle, with true scientific curiosity, to seek and find the cause of this phenomenon. His researches led him to Indo-China and back again, he studied many diseases in birds, animals and man. Even amidst his duties in the Great War he found time for a prodigious amount of experimentation and for prolific writing. Dealing with a new, ultra-microscopic principle, he had to invent new bacteriological methods. One is equally impressed with his immense industry and his scientific genius. The world now admits that he is the discoverer of a new principle in immunity, a principle which dissolves bacteria and plays an important part in natural recovery from certain diseases. His work has been confirmed by many. Barbone in Indo-China has almost disappeared and Brazil is using the bacteriophage with great success in dysentery. The one point his critics will not admit is d'Herelle's claim that the bacteriophage is a living, infravisible organism parasitizing bacteria.

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E. B. SMITH

MEDICAL DIAGNOSIS FOR THE STUDENT AND PRACTITIONER. By CHARLES LYMAN GREENE, M.D. Sixth edition revised and enlarged. Octavo of 1468 pages with 14 colored plates and 709 other illustrations. Philadelphia, P. Blakiston's Son and Company, 1926 Cloth, \$12.00

The sixth edition of this well-known book is not the type one is apt to read from cover to cover in orderly sequence, but rather according to one's immediate requirements or mood. In the first case, a wealth of valuable information on the laboratory, clinical and diagnostic aspect of medicine is available, and if the latter should be the case there is always an instructive and interesting presentation of the subject. The author's clinical experience and ability as a teacher of medicine, gives the book that something which we will term medical personality and which differentiates it from a mere collection of hard, dry facts.

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RHINOLOGICAL FINDINGS AND TREATMENT OF CASES OF RETROBULBAR OPTIC NEURITIS*

By MARK J GOTTLIEB, M D, NEW YORK

From the Otolaryngological Service of Beth Israel Hospital.

THE rhinoscopic findings in cases of retrobulbar optic neuritis are practically negligible as far as their value in establishing an etiological relationship between the paranasal sinuses and the involvement of the optic nerve

In recent years this important subject has attracted the attention of many capable investigators and an extensive literature has been accumulated and yet no definite criteria have been established by which on examining the interior of the nose a statement may be made that the sinuses do or do not cause the existing diminution in vision. White of Boston, who has studied this subject from all angles, believes that there must be some fundamental difference from that which is usually found in the anatomical relation of the posterior portion of the middle turbinate to the septum, which more or less crowds this part of the nasal chamber. An acute non-purulent infection superadded would produce swelling and edema sufficient to compress all other tissues in this region and affect the optic nerve either by direct extension or collateral edema. He comes to this conclusion because he has found in a large percentage of cases of retrobulbar optic neuritis that the septum was deviated and crowded an already enlarged posterior portion of the middle turbinate and that at times the turbinate was found to have a large cell in its body.

This conclusion might easily explain cases of unilateral retrobulbar optic neuritis because the septum could only be deviated to one side at a place where it would be opposite the posterior end of the middle turbinate. It does not, however, account for the bilateral cases wherein the involvement of one side is nearly as extensive as that of the other. We have observed cases of bilateral involvement of the optic nerves in patients whose nasal chambers were unusually roomy and the turbinates were not in contact with the septum. A suggestive observation is that cases of this dis-

ease occur in groups. Three or four have come to the writer within two months or so and then, except for sporadic cases, another series would appear a year or so after. Is it not likely that retrobulbar optic neuritis from paranasal sinus disease of the non-suppurative type is due to some form of bacterial infection which is as yet not understood?

It is generally agreed that acute or chronic purulent ethmoiditis and sphenoiditis is not a necessary finding in cases of retrobulbar optic neuritis. Cases of this kind, however, do occur in which suppurating sinuses cause this malady. The finding of purulent discharge in the nose in a case of diminution of the visual acuity may be suggestive of a very likely etiological factor. However, the great majority of cases of retrobulbar optic neuritis are not associated with purulent inflammation of the sinuses. It is rather the absence of discharge and other evidences of inflammatory reaction which characterizes this disease.

The middle turbinate may look perfectly normal. On the other hand, the author has observed in some cases of retrobulbar optic neuritis of nasal origin that the middle turbinate looked dry, that its surface was dotted with very small red elevations between which the mucus membrane looked pale and glossy. Whether this observation has any significance cannot be stated. Occasionally denuded bone in the sphenoid may be felt with the probe. More often, however, the sphenoid walls feel as smooth as those not associated with the retrobulbar optic neuritis.

The histological findings in the scrapings from the sinuses and turbinate bones are vague and similar processes may be encountered in heads wherein the optic nerves are not the seat of a neuritis. The microscopical appearance of the tissues in the nose varies with the age of the patient, the state of his general health, the season of the year, the intensity of the climate. These variations may border on disease and be construed

* Read at the Annual Meeting of the Medical Society of the State of New York at New York, March 31 1926

SOME ENCOURAGEMENTS IN CANCER SURGERY By G. GREY TURNER, F.R.C.S. (Eng.), Honorary Surgeon Royal Infirmary, Newcastle-upon-Tyne. William Wood & Co., New York, 1925. Price \$3.50

In "Some Encouragements in Cancer Surgery," G. Grey Turner has presented the profession with a very readable, interesting and helpful monograph. This little book of 75 pages contains the substance of a lantern demonstration before the Surgical Section of the Royal Society.

The arrangement of the material is regional and includes cases of cancer of the rectum, large bowel, stomach, breast, bladder, mouth, etc. The author's purpose is to call attention to a brighter side of cancer surgery. He relates some very remarkable recoveries, some unexpected after local operation, upon apparently extensive, adherent and infiltrating growths. The diagnosis in these cases was confirmed by microscopic examination of the growth following its removal and examination of the slide and section at the time of the follow-up examination. The illustrations of specimens and microscopic sections are complete and convincing.

Mr. Turner is emphatic that the outlook for patients suffering from malignant disease is brighter than usually supposed. He insists on vigorous and thorough surgical attack as the best chance for cure providing there is no unequivocal evidence of dissemination.

The book strikes an optimistic note and coming from one who speaks with the authority commensurate with a rich and varied experience is a most valuable contribution to the literature on cancer. T M B

A COMPEND OF OBSTETRICS Especially Adapted to the Use of Medical Students and Physicians. Revised and Edited by Clifford B. Lull, M.D. Tenth Edition. 16mo of 283 pages with 84 illustrations. Philadelphia, P. Blakiston's Son and Co., 1925. Cloth, \$2.00 (Blakiston's Compendis).

Brought up to date, this popular Vademecum of old and young practitioners has again made its appearance in the form of a revised edition. In this revision, a number of additions have been made, including a resumé of Potter's Version. It has many illustrations. Its briefness and up-to-dateness recommend it to those wishing to make a rapid review of the subject. L. KOEMPEL.

L'ANATOMIE EN POCHE. By VICTOR PAUCHET and S. DUPRET. 12mo. of 316 pages, with 297 plates. Paris, Gaston Doin & Cie, 1926. Paper, 25 Francs. Dr. Pauchet is a French surgeon well known to

American visitors to Paris. As a teacher of anatomy and operative surgery he conceived the idea of making his notes and dissections permanent through the drawings of Dupret.

The "pocket anatomy" here reviewed is the result of this coalition and it must be said that the result is quite satisfactory. It is a text book without text, a series of 297 plates made from drawings of great clearness, well colored and explained by the connection of the tissues with the anatomical term by means of dotted lines. The word "atlas" applied by the authors to their work is self explanatory and gives the exact idea of the nature of the book, namely a combination of drawings and terms—nothing more. WM. HENRY DONNELLY

THE BACTERIOPHAGE AND ITS BEHAVIOR. By F. d'HERELLE, M.D. Translated by GEORGE H. SMITH, Ph.D.

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diminish This necessitates further unnecessary operative intervention

Miss M B, age 17 years, school girl Appeared first for examination and treatment on February 11, 1924, complaining of frontal headache, tenderness over both frontal sinuses, and nasal discharge The pain in the forehead continued after the nasal discharge had ceased, and the patient did not complain of difficulty with her eyes, but because of the fact that the headache persisted in spite of treatment, she was sent to Dr Cyril Barnert for the purpose of a routine examination of her eyes Surprising as it may seem, the report of the eye findings indicated that the patient was rapidly losing her sight X-ray showed no disease of the nasal accessory sinuses The Wassermann was negative All other causes having been eliminated, on June 13, 1924, a bilateral ethmosphenoidectomy was performed and both middle turbinates were preserved Following the operation, the headaches disappeared On July 29, the ophthalmologist reported a moderate improvement in the seeing capacity, with a broadening of the fields for form and color Directly after that, however, her vision again began to be poor and the question arose as to what procedure should be followed to prevent her vision from becoming permanently impaired It was then decided to again attack both ethmoid areas, cut away all scar tissue, and remove both middle turbinates This produced an immediate and progressive improvement so much so, that on August 29, her vision

show small sections of tissue typical of nasal mucosa, each containing a small area of cancellous bone The glands are abundant and show no evidence of increased activity The blood vessels show no thickening and are surrounded by a well developed erectile envelope of smooth muscle The bone is normal and the contained marrow is fatty The mucosa is absent in many areas, but this is an artifact Such as is preserved shows no infil-

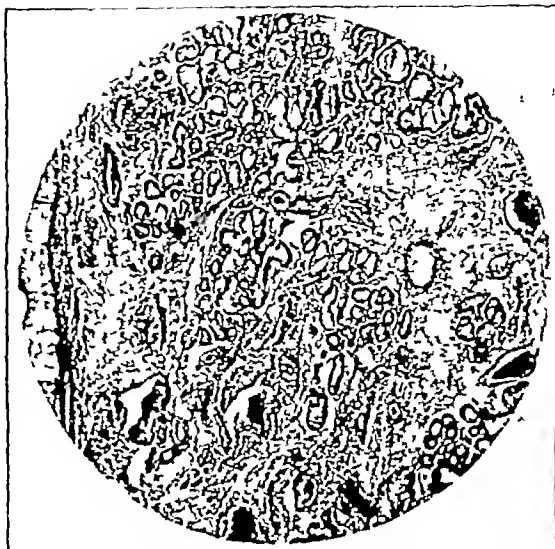


FIG 4 Fibrous Tissue, Left Ethmoid Case Miss I B



FIG 3 Fibrous Tissue, Left Ethmoid, Case Miss I B

was found to be practically normal and has remained so to date The specimens from both ethmoids and sphenoids were subdivided to Dr Eli Moschkowitz, who has been kind enough to render the following report Both right and left ethmoids show the same structure The slides

tration or desquamation The stroma is fairly firm and is more fibrous than the average ethmoid There are a few areas of round celled infiltration, but they are sparse and not more abundant than the vast majority of ethmoids show There are no eosinophiles

I have seen nine cases of retrobulbar optic neuritis Eight of these were bilateral and one unilateral When the affection is on both sides, both ethmoids and sphenoids should be broken down The procedure can be done at one sitting I have never seen ill effects from it This practice is contrary to that of some excellent rhinologists The unilateral case which was observed by the writer, was one wherein at some time previous a piece of cotton, accidentally left by another doctor, was jammed between the middle turbinate and the septum On the day scheduled for operation the patient sneezed out the cotton and the optic neuritis promptly cleared up

Usually within eight or twelve hours after the operation, the patient will tell you that the vision has improved and continues to improve. In a certain few, the vision continues to diminish after the operation and then suddenly veers around and the recovery is uneventful, but prolonged

This is very well illustrated in the case of Miss I B—Referred by Dr Cyril Barnert with the following note "I am referring Miss I B who

as pathological by one who does not correlate the clinical with the laboratorial. Even in patients in whom the surgeon has found frank pus coming from the ethmoid region, sections of such ethmoids reveal slight deviations from the normal. Never does one find, as would be expected, pockets of pus, polynuclear infiltrations, mucosal ulcerations, or indeed any changes usually associated with chronic purulent mucosal inflammations. In

retrobulbar optic neuritis, 29 of which recovered without operative intervention, the five remaining cases apparently, according to the report, either became worse or their condition remained stationary. Lenoir and Beaujeu report 16 cases, seven recovered spontaneously, 4 retained 9/10 of their vision, 3 retained 8/10 and 2 retained 1/10. Chaillous reports 4 cases that recovered without operation. These were treated with injections of cyanide of mercury.

The rational procedure for the handling of a case of retrobulbar optic neuritis palliatively, would be to give the patient a brisk cathartic, shrink up the turbinates with adrenalin and cocaine, followed by suction. This may be supplemented by tampons containing some of the silver albuminate salt. The giving of a series of injections of autogenous vaccines may be undertaken. This management should be given in conjunction with an ophthalmologist who must see the patient daily so as to determine the condition of the optic nerves and serve as a safeguard against continuing this treatment when the patient is getting rapidly worse. In such an event prompt surgical measures should be applied.

The surgical treatment consists of a thorough removal of all possible ethmoid tissues and breaking down the anterior wall of the sphenoid cavity. The middle turbinate should be removed for it has been the author's experience that the outer surface of the turbinate will in a certain number of cases adhere to the orbital plate of the ethmoid.

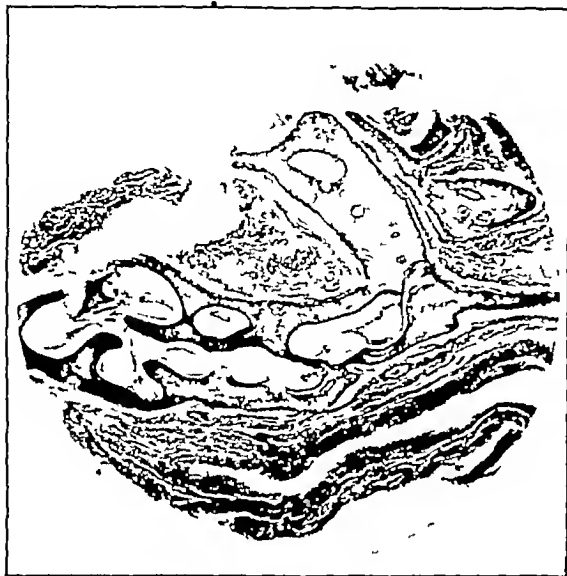


FIG. 1 Left Ethmoid, Case Miss M. B.

most of the cases of retrobulbar optic neuritis a functionless overgrowth of supporting tissue is found, but such hyperplasia is encountered in a great many sinuses which are not associated with this disease. It is possible, as White has suggested, that the hyperplasia predisposes and an infection excites an edema which compresses the nerve in its unyielding canal.

The management of cases of retrobulbar optic neuritis may be divided into expectant and operative treatment. Unless haste is essential, the patient should have a blood Wassermann examination, radiograph of the nasal accessory sinuses and of the optic canals. The teeth should be thoroughly examined by the dentist. If the optic canals are large there is no necessity for hurry and the patient may recover without surgical intervention. White believes that the disease, in cases where the canals are large, is not due to direct extension, but from absorption of toxins or bacteria from diseased foci, such as chronic purulent disease of one or more of the nasal accessory sinuses, diseased tonsils or teeth.

Palliative treatment has not been practised in this country because of the fear that the patient would go blind and a valuable opportunity for curing the patient, lost forever.

In Europe, however, expectant treatment has been undertaken and Weill reports 34 cases of

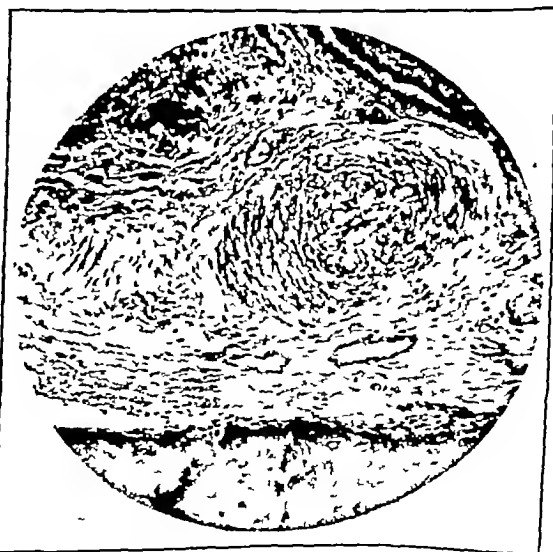


FIG. 2 Fibrous Tissue, Left Ethmoid, Case Miss M. B.

and reproduce the same conditions which obtained before the operation. In such an event, as will be shown in the following case history, the sight will become normal directly after the ethmoidectomy and sphenoidectomy and within a reasonably short time thereafter the visual acuity again gradually

to the external wall of the nose. Under local treatment to the nose and autogenous vaccine therapy, his vision improved and remained so up to January 31, 1925, when he was last examined.

The after care of cases of retrobulbar optic neuritis that have been operated upon is the same as that which would be needed in any case wherein the sphenoid and ethmoid sinuses have been attacked surgically. It is my practice to begin to treat the operated field with the tampons as suggested by Dowling, beginning about forty-eight hours after the operation and continuing this pro-

cedure over a long period of time, at first twice daily, and then daily, until the case is healed. During the after care, the ophthalmologist should occasionally examine the patient's eyes to determine the extent and rapidity of the improvement, if any.

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ROENTGEN FINDINGS OF OPTIC CANALS IN BLINDNESS DUE TO NASAL ACCESSORY SINUS DISEASE*

By HENRY K. TAYLOR, M.D., NEW YORK CITY

From the Department of Roentgenology and Otolaryngology, Beth Israel Hospital, New York City

THE optic canal is an osseous structure, affording protection to the optic nerve and ophthalmic artery which accompanies it. Should the nerve itself, or its enveloping sheath become swollen, in a contracted canal the pressure of the edema against the unyielding wall will be sufficient to produce an optic atrophy. When the canal is large or that of the average normal this may not necessarily occur.

mm along the inferior root and about 10 mm along the superior root, the latter measurement varying, depending upon development. The diameter of the canal is about 5 mm. The average diameter of the canal, according to Whitnall is 5 to 6 mm. Wilbrand and Saenger give the average as 7 mm. White gives the the average as 5.17 mm. According to Goalwin, the average is between 4 and 5 mm. Piersol gives the diameter of the optic nerve



FIG. 1 Normal circular optic canal, 4.8 x 5.6 mm.



FIG. 2 Normal triangular optic canal, 4.0 x 5.2 mm.

Piersol gives the anatomy of the canal as follows. The lesser wings of the sphenoid arise by two roots. The superior root is a plate covering the presphenoid, which forms the posterior part of the anterior fossa of the base of the skull and the roof of the orbit. The inferior root is a strong process arising from the side of the body of the sphenoid. These two roots and the body of the sphenoid enclose a canal, the optic canal. The canal measures 5

as 3 to 4 mm. From this it is evident that a moderate swelling could cause sufficient pressure to cause a rapid degeneration.

Occasionally, due to faulty development, the optic nerve may be devoid of its osseous protection, as shown by Onodi, and pass through an ethmoid cell or through the sphenoidal sinus.

According to Van Gilse, there is a remnant of the craniopharyngeous lateralis canal, which appears as an aperture in the wall of the sphenoid cavity. This leads with a con-

* Read at the Annual Meeting of the Medical Society of the State of New York at New York, March 31, 1926.

came to me this morning with a history of rapidly failing vision in the right eye for the last ten days. Examination showed normal conjunctivae, musculature, pupils, media and fundi in both eyes. There is a slight tenderness on backward pressure over the right globe. Perimetry disclosed a marked concentric contraction for form in the right eye with an entire absence of color perception. The left eye has a normal field for form and a contracted field for color with a relative central color scotoma. The vision in the right eye is reduced to counting fingers at six feet and can be improved but slightly with correction, although the girl stated that in an examination made while in Atlantic City a few weeks ago, the vision in the right eye was 20/20. The vision in the left eye is normal with correction of the hyperopic error.

We are undoubtedly dealing with an acute retrobulbar optic neuritis in the right eye and a similar incipient condition in the left, and in view of the very rapid loss of vision, I would recommend an immediate exploration of the right ethmoid (and of the left as well, if practicable), even if there is no clinical or X-ray evidence of sinus disease." Signed C B, M D

X-ray pictures were immediately made and a negative report was obtained. There was a deviation of the septum in its posterior portion, the convexity of the bend being toward the right. However, this deviation did not crowd this area and it did not interfere with the operative procedure. It was impossible to probe the sphenoid sinuses.

On the following day both ethmoids were opened and all tissue removed with meticulous care. The right sphenoid was found absent and the left was very shallow, but extended deeply down into the pterygoid plate.

The patient did not improve as was expected and although the left eye became somewhat better, the right became progressively worse. This gave us a great deal of anxiety and we proceeded to eliminate causes. The Wassermann was found to be negative. The dentist found two teeth that were apparently diseased and removed them. The right eye continued to get worse, so much so that finally she could only distinguish light, and then she suddenly improved and has continued to do so ever since.

Pathological report by Dr. Eli Moschkowitz. Both right and left ethmoids show the same structure. The slides show one or two large and several small pieces of nasal mucosa, some containing small areas of cancellous bone. The structure is practically identical with that found in the case of M B, except that the stroma is perhaps more fibrous and there is no infiltration with round cells. The mucosa is everywhere well preserved.

In cases wherein a chronic purulent sinusitis exists as the etiologic factor the vision does not

improve as rapidly as in the non-suppurative variety because the retrobulbar optic neuritis is probably of the chronic type also. Another factor which interferes with prompt recovery in such cases is that there may be a combination of compression on the nerve and toxic absorption from the purulent focus. In the event that the condition does not continue to improve in such a case, it has been found valuable to use suction, douching, tamponage and autogenous vaccines. This will be illustrated very well in the following case history.

Mr. J S L, age 60 years, bank examiner. Appeared first for examination on March 6, 1924. For a great many years he has had a thick purulent discharge from the nose, necessitating the use of many handkerchiefs during the day, also expectorates constantly mucopurulent material which drops from the back of his nose. Catches cold frequently. For the past seven months has experienced difficulty in concentrating his vision, principally with the right eye. When addressing the golf ball, is compelled to focus his vision repeatedly. He also complains of a mild photophobia. Mucopurulent material is seen dripping from the middle meatus on both sides, but more from the right. The right frontal sinus is cloudy, the left clear to transillumination. The right frontal sinus and antrum of Highmore are tender. He was referred to Dr. Cyril Barnert for eye examination, with the following results:

"He has a definite hyperopic astigmatism and presbyopia for which his present glasses are quite adequate. Perimetry discloses the fact that his fields are very good for form, while his color fields are relatively constricted, the right more than the left. This, however, together with his statement that he is at times conscious of a central blur makes a diagnosis of a beginning of a retrobulbar neuritis very probable. I think his sinuses should be looked into."

Accordingly, on March 15, 1924, a bilateral ethmosphenoidectomy was done under cocaine anesthesia. The right middle turbinate was preserved. The left was sacrificed because it interfered with the approach to the sphenoid sinuses. The sphenoid sinuses were found to be located unusually low down and in both instances extended deeply into the pterygoid plate. The right sphenoid was found to be distinctly diseased. Three days after the operation, the patient experienced a very decided improvement in his vision. This improvement continued for a few months, when difficulties of seeing began again to be manifest. On October 7, 1924, he was again examined by Dr. Barnert, who found an increased constriction of the fields, especially for form. On examination of the nose it was found that there was an increase of the purulent discharge, and that the middle turbinate on the right side which was not removed at the time of the operation hung freely in the nasal chamber and was not adherent.

regular foramen is usually due to variations in development of the skull

Adjacent disease, particularly of the posterior ethmoids and sphenoids, is not always demonstrable. However it is known that sinus disease may exist without clinical or roent-



Fig 5 Irregular optic canal 3.2 x 5.6 mm, ocephaly, double optic atrophy since childhood. Sinuses negative.

genographic evidence. If there are eye symptoms or optic nerve involvement associated with an optic canal that measures less than 4 mm in diameter, and no cause found for the existing condition, operative intervention of the sinuses is advisable. This procedure, however, is not necessarily indicated when the canal measures over 5 mm in diameter. In cases with optic nerve involvement, the majority of the canals are oval, triangular or irregular. In some instances circular canals are found. Some of these canals are approximately of the average diameter, the majority of them, however, measure less than 5 mm in diameter.

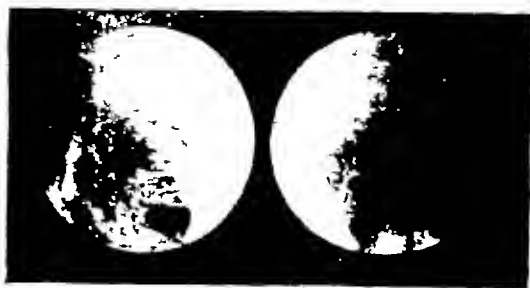


Fig 6. Circular optic canal R. 4.3 x 4.0 L. 5.2 x 4.4 mm, sudden blindness, right eye. Sinuses showed a slight change in illumination of the ethmoids. Gradual improvement beginning two days after operation. Operative findings, no pus, hyperplastic condition of ethmoids and sphenoids.

Loss of vision may at times be accounted for by extrinsic causes which result in an irregular contraction of the optic foramen, this in turn results in pressure upon the optic nerve. Virchow and Manz have demonstrated that the cause of blindness in a number of instances, was due to arrested development of the skull in earliest youth, premature ossification of the skull, and to hyperostosis.

The roentgenographic appearance of the optic canal has a definite but limited value. The clinical findings of ocular disease are definite. The exact cause, however, may not be known. The roentgen findings establish only the urgency necessary for operative interference to avert irreparable damage to the optic nerve. A contracted canal warrants early interference. A canal of normal size, does not necessarily require early interference. A normal canal permits of further study to determine the exact cause, which at times, may not be due to sinus disease.

OPHTHALMIC FINDINGS IN NASAL ACCESSORY SINUS DISEASES*

By CYRIL BARNERT, M.D., NEW YORK CITY

THAT the eye may be involved in disease of the neighboring nasal cavities is a well established fact, but the true significance and importance of these eye findings as a diagnostic aid is perhaps not fully appreciated. We have been more and more impressed by the comparatively large number of endonasal conditions unearthed in a systematic search for the cause and relief of a wide variety of ocular disturbances. It is our present intention briefly to point out the more striking and illustrative facts elicited by routine examination and to parallel this with the published reports of other observers, limiting ourselves for the sake of brevity and novelty

to cases seen and reported in the past year or two.

The external eye, the lids, conjunctiva, musculature, episclera and sclera rarely show abnormalities in nasal disease except (1) Local infection in the sinuses is occasionally expressed in conjunctival injection or as an episcleritis or scleritis, or (2) Where an accompanying periostitis of the orbit in ethmoiditis produces an oedema of the lids with proptosis or bulging of the eyeball, together with impaired motility of the globe. Where this periostitis produces a perforation of the orbit with subperiosteal or even orbital abscess, the signs are more intense, going on if unchecked to breaking down of the orbital fascia and skin to spontaneous rupture,

* Read at the Annual Meeting of the Medical Society of the State of New York at New York, March 31, 1926.

nective tissue septum in the shape of a diverticulum into the subdural space carrying blood and lymph channels. This aperture is present up to puberty and sometimes after puberty. This may be of importance from an etiological standpoint.



FIG 3 Oval optic canal, 44×28 mm. Sinuses showed a slight change in illumination of the ethmoids and right antrum. Progressive diminution in vision which improved after treatment.

Roentgenographically, the shadow cast by the canal is referred to as the optic foramen. In reality this shadow is the narrowest portion of the canal. The optic foramen as observed on the film may be circular, oval, triangular or irregular. The shape of the canal can be properly portrayed, if exposed correctly. Faulty technic will alter the appearance of the optic canal, which will be demonstrated later.

Although the question of technique does not properly belong here it is of importance to mention a few words regarding the position of the patient.

The patient is placed in the prone position, the face resting upon the jaw, malar bone and nose for the side rayed. The film is horizontally placed. The central ray is directed perpendicularly to the film. In this manner the optic canal is perpendicular to the film and is projected into the lower and outer quadrant of the orbit. The optic canal is approximately $5\frac{1}{2}$ to $6\frac{1}{2}$ cm above the film. This causes a certain amount of distortion or enlargement of the foramen as it appears in the roentgenogram. In determining the actual diameter of the canal the amount of distortion is taken into consideration. The factors causing the distortion need not be here considered. Tilting of the head in any direction will project the optic canal in some other portion of the orbit; the foramen will appear smaller, the shape will be altered, and the actual measurement misleading. This position was described in a

paper of Dr. White's of Boston, which appeared in the *Boston Medical and Surgical Journal*, November 15th, 1923. Stenver, in 1916, gave considerable attention to the optic foramen, but only studied the size and shape in the roentgenogram in a comparative way, using the Rhese position for the ethmoids. Van de Hoeve did likewise and so did Schuller. Dr. White, however, was the first one to attach any importance to the actual measurements of the optic foramina. Goalwin of New York, determines certain angles for the position of the head and central ray, and also projects the canal in the lower and outer quadrant of the orbit.

White's directions for roentgenography of the optic canal are to be preferred, as the most comfortable for the patient, easiest for radiography, not requiring any accessory devices, and giving uniform results.

A contiguous infection of the optic nerve from adjacent sinuses will only be evidenced by eye manifestations, for there are no roentgenographic changes. Whenever extensive pneumatization exists, it encroaches upon the optic canal, the walls are usually found to be thin, and the diameter diminished. If sinus disease exists, it renders the contents of the canal more susceptible to infection.

The important thing to study in the canal is its size, shape and adjacent disease, if any. The majority of skulls present canals which measure 5 mm or over in diameter, about 10 per cent measure $4\frac{1}{2}$ mm and a very small percentage of the canals measure 4 mm or less in diameter.

The larger canals (5 mm or more in diam-

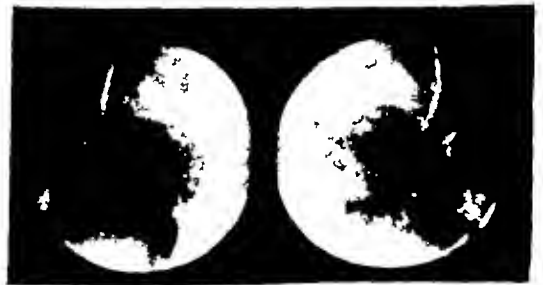


FIG. 4 Oval optic canal, R. 44×36 mm. L. 48×32 mm. Sinuses showed a slight change in illumination of the left ethmoids and right sphenoid. Visual disturbance. Subsequent developments unknown.

eter) are usually circular, a small percentage being slightly oval or triangular in outline. Of this group, a small percentage show extensive pneumatization. The smaller canals (less than 5 mm in diameter) more than half are oval, triangular or irregular, and the majority of them show extensive pneumatization. An ir-

regular foramen is usually due to variations in development of the skull

Adjacent disease, particularly of the posterior ethmoids and sphenoids, is not always demonstrable. However it is known that sinus disease may exist without clinical or roent-



FIG. 5 Irregular optic canal 3.2 x 5.6 mm., ocephaly, double optic atrophy since childhood. Sinuses negative.

genographic evidence. If there are eye symptoms or optic nerve involvement associated with an optic canal that measures less than 4 mm in diameter, and no cause found for the existing condition, operative intervention of the sinuses is advisable. This procedure, however, is not necessarily indicated when the canal measures over 5 mm in diameter. In cases with optic nerve involvement, the majority of the canals are oval, triangular or irregular. In some instances circular canals are found. Some of these canals are approximately of the average diameter, the majority of them, however, measure less than 5 mm in diameter.



FIG. 6 Circular optic canal R. 4.3 x 4.0 L. 5.2 x 4.4 mm., sudden blindness, right eye. Sinuses showed a slight change in illumination of the ethmoids. Gradual improvement beginning two days after operation. Operative findings, no pus, hyperplastic condition of ethmoids and sphenoids.

Loss of vision may at times be accounted for by extrinsic causes which result in an irregular contraction of the optic foramen, this in turn results in pressure upon the optic nerve. Virchow and Manz have demonstrated that the cause of blindness in a number of instances, was due to arrested development of the skull in earliest youth, premature ossification of the skull, and to hyperostosis.

The roentgenographic appearance of the optic canal has a definite but limited value. The clinical findings of ocular disease are definite. The exact cause, however, may not be known. The roentgen findings establish only the urgency necessary for operative interference to avert irreparable damage to the optic nerve. A contracted canal warrants early interference. A canal of normal size, does not necessarily require early interference. A normal canal permits of further study to determine the exact cause, which at times, may not be due to sinus disease.

OPHTHALMIC FINDINGS IN NASAL ACCESSORY SINUS DISEASES*

By CYRIL BARNERT, M D, NEW YORK CITY

THAT the eye may be involved in disease of the neighboring nasal cavities is a well established fact, but the true significance and importance of these eye findings as a diagnostic aid is perhaps not fully appreciated. We have been more and more impressed by the comparatively large number of endonasal conditions unearthed in a systematic search for the cause and relief of a wide variety of ocular disturbances. It is our present intention briefly to point out the more striking and illustrative facts elicited by routine examination and to parallel this with the published reports of other observers, limiting ourselves for the sake of brevity and novelty

to cases seen and reported in the past year or two.

The external eye, the lids, conjunctiva, musculature, episclera and sclera rarely show abnormalities in nasal disease except (1) Local infection in the sinuses is occasionally expressed in conjunctival injection or as an episcleritis or scleritis, or (2) Where an accompanying periostitis of the orbit in ethmoiditis produces an oedema of the lids with proptosis or bulging of the eyeball, together with impaired motility of the globe. Where this periostitis produces a perforation of the orbit with subperiosteal or even orbital abscess, the signs are more intense, going on if unchecked to breaking down of the orbital fascia and skin to spontaneous rupture,

* Read at the Annual Meeting of the Medical Society of the State of New York at New York March 31 1926

followed by a persistent fistula. Meanwhile the optic nerve itself may suffer from stretching, or the globe itself by direct infection or by way of the blood stream may become involved in an exudative inflammatory process.

SIMPLE OEDEMA OF THE ORBIT

Case 1—Boy, A. Z., aged 8, seen with Dr. Sidney Yankauer. Intense pain over left eye, with marked swelling of lids, slight proptosis, fundi and media normal. Duration twenty-four hours. Orbital oedema from adjacent acute ethmoiditis. Recommended conservative intranasal treatment for twenty-four hours before considering operation. Eye symptoms quieted promptly.

ORBITAL ABSCESS

Case 2—Infant ten days old, Mt. Sinai, service of Dr. Shick, history of oedema of right lids since second day of life. Examination showed marked oedema of lids with chemosis and proptosis. Temperature, 102, child looked septic. Suggested blood culture. On the following day there was evidence of periostitis of the right femur. Blood culture positive for staphylococcus aureus. Later lung signs and death on seventh day. Autopsy—generalized sepsis with abscess of right antrum perforating into orbit. The impression here was that the antrum was not the primary focus, but was rather secondary to a general infection, cause undetermined.

Case 3—Boy, age 11. Fell ten feet two days before admission. Unconscious ten minutes. Next day intense oedema of left eyelids. Temperature 102, delirium. Examination, O. S. oedema lids, chemosis, proptosis, faint blurring of nerve head. Tentative diagnosis, fracture of base of skull through left ethmoid with beginning orbital abscess. No pus obtained with syringe then. Two days later we aspirated pus from upper inner quadrant of orbit and then opened and drained the abscess. Wound drained, gradually closed but reopened several times. Recommended intranasal exenteration of ethmoid. Unable to convince Rhinologist of this necessity, I reopened orbit, exposed lamina papyracea, demonstrated a fissure fracture therein and proceeded to exenterate the ethmoid from the orbital side. Wound sewed together in two layers, orbital fascia and skin. Primary union, recovery uneventful and complete.

We agree with Dr. Yankauer that ethmoiditis with orbital cellulitis is best attacked by the intranasal route, if seen early enough.

UVEITIS

Iritis, uveitis and chorio-retinitis are comparatively rare as sequelae of sinusitis, but occasionally found. This is particularly important as the possible underlying cause of cataract secondary to uveitis in youth and middle life, as well as a possible source of post-operative infection in all

operations on the globe, which should be eliminated if possible. The routine use of the slit lamp and microscope is proving that many cases regarded as primary glaucoma are in reality secondary to a low grade uveitis and the possible connection with underlying focal infection is pregnant with possibilities of extreme importance. Not rarely a patient will call upon an ophthalmologist complaining of pain over one or both eyes, in whom a history of acute coryza and the finding of tenderness on pressure over the supro-orbital ridge is sufficient to establish a diagnosis of acute frontal sinusitis.

In obscure cases of metastatic choroiditis, the sinuses must be eliminated as a causative factor.

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Papilledema or choked disc, though most frequently denoting increased intracranial pressure due to tumor, is also occasionally found as a complication of a focal infection, especially lateral sinus thrombosis and accessory sinusitis, diseased tonsils and teeth.

Crigler (33) reports a case of choked disc cured by exenteration of the ethmoids in a girl of nine years. Echavarría (34) reports a case of edema of the optic nerve due to suppuration in the antrum of Highmore.

OPTIC NEURITIS

Optic neuritis, characterized by rapid diminution of vision with redness, blurring of the disc, contraction of the visual fields is frequently due to ethmoid and sphenoid sinusitis.

Case 4—Dr. J. A. C. Headache, photophobia, blurred vision, deep orbital pain. Examination decided blurring of outline of both discs, contraction of color fields with relative scotoma for red in the right eye. No general or focal disease except bi-lateral ethmoiditis. Referred to Dr. Yankauer, who advised ethmoid operation. Patient deferred operation and the symptoms cleared up with nasal irrigation but have a tendency to recur and the man should have his sinuses radically exenterated.

The literature shows seventeen cases reported in the last two years, which probably represents but a fraction of the total. These are on the following page.

RETROBULBAR NEURITIS

Finally and of greatest importance is the question of retrobulbar neuritis, for two reasons, first, because of its greater frequency, and second, because of the absence of any *objective* eye findings to suggest its presence. The conjunctiva, musculature, pupils, media and fundi are normal, yet vision becomes rapidly or slowly diminished often with permanent impairment due to later atrophic changes in the nerve fibers which then and then only become visible with the ophthalmoscope. By retrobulbar neuritis is meant an inflammatory process in the optic nerve or

	No of cases	Resume
Valude & Chantier (1)	1	Cured by operation of both sphenoids, vision returned from light perception to 20/20
Frey (2)	1	Relieved by frontal sinus operation.
Coutela & Veil (3)	2	Unilateral, X-ray negative, cured by sphenoidectomy
Genet & Jacob (4)	2	Posterior sinus involvement, one with complete recovery of vision and one with partial recovery of vision, after operation
Cridland (5)	1	Heterophthalmos, neuro-retinal atrophy secondary to sphenoid sinuses
Temple-Smith (6)	1	Following acute cold, reduction of vision to hand movements entirely relieved by having both sphenoids opened
Grandclement & Sarguon (7)	1	Vision improved from 2/10 to normal in a few days after removal of middle turbinates.
Pakozdy (8)	1	Bilateral, the second eye involved two weeks after the first, cured by ethmoidectomy
Peter (9)	1	Ethmoid and sphenoid sinusitis, caused by operation
Thompson (10)	2	Ethmoid and sphenoid sinusitis, caused by operation
High (11)	1	Left optic neuritis, cured by exenteration of left ethmoid.
Post (12)	2	Cured by sphenoid and ethmoid operation.
Swerdfeger (13)	1	Left optic neuritis, cured by sphenoidectomy

its sheath anywhere along its course from the optic chiasm to the insertion into the globe. Most frequently the trouble is found in the orbital canal wherein the nerve is confined with but small leeway for expansion in inflammatory oedema. As a consequence any increased intracranial pressure is expended upon the delicate nerve fibers themselves and under these circumstances the maculopapular bundle, which innervates the macular region of the retina usually suffers most, due undoubtedly to its greater delicacy of structure. This is evidenced by finding a central scotoma or blind spot in the visual field. The peripheral fibers are also involved sooner or later which produces a concentric contraction of the color fields, with or without involvement of the field for form. The mechanics of the production of retrobulbar neuritis in accessory sinusitis is not entirely clear, but when one considers the proximity of the orbital canal to the sinuses, which last are extremely erratic in their development and extent, so that the nerve may be separated from the mucosa of the sinus by a papyraceous layer of bone only, the obvious deduction of direct infection is most feasible. Gradle, of Chicago, suggests that the infection is carried through venous channels which drain backward into the ophthalmic system. White, of Boston, is sponsor for the ingenious suggestion that retrobulbar neuritis occurs only in those individuals whose optic foramen is abnormally narrow. By roengenological examination he measures this diameter in vitam.

Clinically, retrobulbar neuritis occurs in acute and chronic form. The acute type manifests itself by headache, a rapidly progressive loss of central vision, together with concentric contraction of the peripheral fields, first for color and then for form, also tenderness on pressure upon or movement of the globe. In the chronic form the symptoms are less acute, dull ache or no pain, concentric contraction of the fields with or without central scotoma.

We were impressed by the large number of

patients who in a routine examination, which includes always the charting of the fields of vision, showed definite contraction of the fields for colors alone or with peripheral contraction for form. These cases on further study often showed evidence of sinusitis and regained normal fields after appropriate care of the nasal condition. For some time we seemed alone in the opinion that concentric contraction of the fields without central scotoma is sufficient evidence of a retrobulbar neuritis. Now, however, Gradle has reached the same conclusion as has also Baldenweck of Paris.

ACUTE FORM

Case 5—Mrs. Emil M., referred by Dr. Mark Gottlieb, sole complaint eye fatigue and occasional slight headache, the usual story of the patient seeking relief from eye strain. Examination negative except for hyperopia and astigmatism. Perimetry, however, disclosed marked concentric contraction for both form and color with a large absolute central scotoma in the right eye. General, local and X-ray examinations negative. Referred back to Dr. Gottlieb with recommendation that bilateral ethmoid exenteration be done. Fields entirely normal on re-examination two weeks after operation.

Case 6—Clarence R. T. Six days before examination noticed faint film over left eye, gradually growing worse. Pain in eye on moving it. Examination conjunctivae, pupils, musculature, fundi and media normal. Vision right eye, 20/20, left eye, 4/200, slight tenderness on pressure over the left eye. Right field normal, left concentric contraction with total loss of color perception and a huge absolute central scotoma. Because of the rapidity and extent of the visual damage, an immediate exenteration of the ethmoids was recommended and done at Mt. Sinai within a few hours by Dr. Kaempfer. There were no definite operative findings but vision began to improve in a few hours and in a week scotomata and color blindness had disappeared.

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tumors including an aneurism of the circle of Willis, an hypophyseal cyst, a supra-sellar tumor and two frontal lobe neoplasms. One of the latter we saw with Dr. Elsberg and besides the definite retrobulbar neuritis there was ample neurological evidence of a left anterior fossa new growth, which finding was confirmed by Dr. Elsberg at operation. Three cases were ascribed to malaria, three to toxemia, one of these metastatic, one to wood alcohol, and one to arsenic, ascribed to six doses of salvarsan in two weeks, one to dental infection and nineteen unaccounted for. It is but fair to add that Chaillous (37), Weill (38) and Bourguet (39) report a series of fifteen cases with spontaneous recovery (14 to 44 inclusive).

CONCLUSIONS

First No eye examination is complete without a careful plotting of the visual fields.

Second In the presence of ocular inflammation a thorough search for the underlying cause must be made, including clinical, serological, and roentgenological examinations and the cause, if found, be removed if possible. In addition, in all cases of retrobulbar neuritis, optic neuritis and papilledema a complete neurological examination is indicated in addition.

Third In all cases of retrobulbar neuritis in which no other cause can be found, the ethmoids and sphenoids should be exenterated, even if there is no clinical or roentgenological evidence of sinus disease.

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and fields were approaching normal Vision 20/15

CHRONIC FORM

Case 7—Miss B, 18, referred by Dr Mark Gottlieb Chief complaint headaches for one month Examination showed no abnormalities except some fine powdery deposits in the vitreous, visible with slit-lamp microscopy, simple hyperopia and concentric contraction for form and colors in both eyes, more marked in the left, together with a slightly enlarged blind spot in the right eye Glasses were prescribed and conservative intranasal treatment recommended After two weeks fields showed increased constriction and headaches persisted A bi-lateral ethmoidectomy done by Dr Gottlieb and one week later there was marked improvement in the visual fields and the headaches were gone Six weeks later, however, there was a return of headaches and contraction of the fields in the left eye, but after further toilet of the sinuses, there was a complete restoration of the fields and relief from pain

Case 8—Mrs Harold S, 31, referred by Dr Harold Hays Complained of severe headache off and on for three years accompanied by blurring of vision There were frequent attacks of coryza with aggravation of the symptoms Examination showed no objective signs except a moderate amount of latent hyperopia, the correction of which did not relieve the patient's distress Perimetry disclosed concentric contraction for form and colors, without scotomata General physical examination negative, Wassermann negative, teeth normal, and X-ray of sinuses negative We recommended an exenteration of the ethmoids which was done under ether anaesthesia per rectum Within two weeks there was a return to normal of the visual fields and relief from subjective symptoms

Case 9—Mrs Ludwig S, 35 Called for routine eye examination The patient gave a history of repeated attacks of acute sinusitis but had no subjective symptoms of any kind at the time of examination Nothing abnormal was disclosed save an error of refraction and definite contraction of the color fields in both eyes Referred back to Dr Mackenty who stated that our observations convinced him that intranasal operation was now inevitable A radical ethmoid operation was done, after which the color fields improved and the sinus attacks ceased

Case 10—Ida B, 24 Glasses prescribed by an oculist in Atlantic City four weeks before examination After wearing the glasses for a week the patient complained of a blur before the right eye, but was assured that this was to be expected The blurring continued, gradually becoming worse until at present she sees large forms only There was slight orbital pain. On examination there were no objective findings Vision in the right eye was limited to counting fingers

at six feet and could not be improved with glasses Vision in the left eye was 20/20 Perimetry disclosed concentric contraction for form in the right eye and total loss of color perception, in the left eye contraction of the color fields and a small color scotoma Referred to Dr Gottlieb with the recommendation that an ethmoidectomy be done immediately even if the X-ray disclosed no evidence of sinusitis

Six days after operation there was still no improvement On the contrary, the right field was smaller with an absolute central scotoma and the left fields were more contracted On the eleventh day the field for form in the right eye was larger but the central scotoma was still present The left color and form fields were approaching normal and the scotoma was gone. There was slow but definite improvement until, three months after operation, the fields, though somewhat contracted, showed entire absence of scotoma, the vision having been restored to normal with appropriate correction Meanwhile all other general and focal examinations had proved negative The slowness of recovery in this case was undoubtedly due to the three weeks' delay in coming for treatment, the blurred vision having been attributed to the wearing of a new pair of glasses

Case 11—Arnold H, age 25 Complained of dull occipital headache and limitation of visual fields, describing the defect spontaneously as similar to gazing through a narrow tube with each eye, also fatigue after reading but no hemeralopia On examination no objective findings but there was definite concentric contraction of the fields for form and slightly for colors, without any scotoma The vision was 20/15 in each eye with correction General and focal examinations disclosed nothing except diseased tonsils, which latter were removed by Dr Yankauer without any improvement in the eye condition Dr I Strauss reported no neurological findings There was doubtful clinical and X-ray evidence of ethmoiditis, enough to warrant exenteration of the right ethmoid by Dr Yankauer One week later the fields were normal Six weeks after operation there was recurrence of headache and of marked contraction of the visual fields in the left eye A submucous resection of the septum, together with an ethmoidectomy on the opposite side, failed to restore the visual fields

Adding our cases to those found in the published reports of the last two years, the following facts are elicited Of a total number of 124 cases of retrobulbar neuritis, those due to endonasal causes were 53 or over 40 per cent, and in all these cases where any mention of therapeutics was made recovery followed operative interference Forty cases were attributed to multiple sclerosis, of which several were not definite, the diagnosis having been made upon very meager grounds, 5 cases due to intracranial

tumors including an aneurism of the circle of Willis, an hypophyseal cyst, a supra-sellar tumor and two frontal lobe neoplasms. One of the latter we saw with Dr. Elsberg and besides the definite retrobulbar neuritis there was ample neurological evidence of a left anterior fossa new growth, which finding was confirmed by Dr. Elsberg at operation. Three cases were ascribed to malaria, three to toxemia, one of these metastatic, one to wood alcohol, and one to arsenic, ascribed to six doses of salvarsan in two weeks, one to dental infection and nineteen unaccounted for. It is but fair to add that Chaillous (37), Weill (38) and Bourguet (39) report a series of fifteen cases with spontaneous recovery (14 to 44 inclusive).

CONCLUSIONS

First No eye examination is complete without a careful plotting of the visual fields.

Second In the presence of ocular inflammation a thorough search for the underlying cause must be made, including clinical, serological, and roentgenological examinations and the cause, if found, be removed if possible. In addition, in all cases of retrobulbar neuritis, optic neuritis and papilledema a complete neurological examination is indicated in addition.

Third In all cases of retrobulbar neuritis in which no other cause can be found, the ethmoids and sphenoids should be extirpated, even if there is no clinical or roentgenological evidence of sinus disease.

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POSTINFLUENZAL DISTURBANCES OF THE HEART*

By ALBERT S. HYMAN, M.D., NEW YORK

DISTURBANCES of the cardiovascular system developing in the course of a severe general infectious disease is not an unfamiliar clinical picture to most physicians. As long ago as 1884, Alonzo Clark (1) in his lectures to the students at the College of Physicians and Surgeons in New York pointed out that such infectious diseases as typhoid fever and sore throat may leave an indelible imprint upon the functional integrity of the heart and its vascular system.

The attention focused by MacKenzie (2) upon the reactions of the myocardium to other infectious diseases which "poisoned" the heart soon brought to light the menace associated with conditions generally considered to be relatively innocuous. Diphtheria (3), typhus fever (4), certain types of pneumonia (5), and acute rheumatic fever (6) were found to be responsible for cardiac damage manifesting itself subsequent to the original infective process.

With the development and increasing refinement in the established methods of cardiovascular study, electrocardiographic and functional investigation of the heart have demonstrated important changes which were hitherto not discoverable by the usual clinical methods of examination. Many of the so-called "childhood diseases" and other infective conditions have been re-investigated with the alarming conclusion that myocardial damage is not an infrequent accompaniment of even the mildest type of general infection. A recent study by Hoskins (7) of London indicates how delayed myocardial repair may be after the subsidence of the original infection, in a series of 16 cases of diphtheria which were carefully followed, myocardial mischief was demonstrable by electrocardiographic methods as long as 86 days afterwards.

Attention has lately been directed to the cardiac sequelae of what is undoubtedly the most widespread of all the infectious diseases—influenza. Beginning with the pandemic in 1918-19, the various complications developing during or subsequent to an acute influenzal attack have been carefully scrutinized by investigators of the problem

throughout the world with a resulting literature which is especially voluminous, practically every organ of the body has been studied in relation to this disease.

Yet with all the accumulated information which has been noted, it is rather astonishing to find how little attention has been devoted toward the purely cardiovascular aspect of the influenzal affections. It is the humble purpose of this paper, therefore, to attempt to summarize briefly the more important conceptions which we have made in our investigations of this matter at the Witkin Foundation for the Study and Prevention of Heart Disease at the Beth David Hospital, New York.

Although Field (8) has properly raised the question as to the accuracy of the diagnosis, we have assumed the usual symptom complex of fever, malaise, generalized pains and aches, coryza and other upper respiratory tract irritation, headache, and nausea to be clinically suggestive of an influenzal attack.

Unless the toxæmia be extreme or there has been a previous damage sustained by the myocardium, ordinarily no disturbance of the heart is noted until the third or fourth day of the infection. From this time onward, cardiac affections are prone to occur with increasing frequency up to ten days or two weeks after the onset of the disease.

The actual incidence of myocardial disease as the result of influenzal infection has been somewhat difficult to determine. Rehfish of Berlin, in whose clinic I had the privilege of studying a series of postinfluenzal conduction disturbances of the heart, estimated that about 7% of all influenzal infections showed cardiac mischief. Parsons-Smith of the Heart Hospital in London believed that the figure ran about 5% in England. My own figures are taken from two series: the first of 231 cases collected in 1918-19 at the Long Island Hospital, Boston, with an incidence of about 12%, the second group studied during the winter and spring of 1925-26 of 61 cases with an incidence of 4%. The relatively high incidence in the first group may in part be due to the severity of the infection during the pandemic, and

* From the Witkin Foundation for the Study and Prevention of Heart Disease at the Beth David Hospital.

secondly, that the group consisted of more elderly persons than in the recent series. However, we shall not probably be far amiss in assuming that from 4% to 6% of all influenzal infections carry with them the hazard of myocardial damage.

In our experience, postinfluenzal cardiac mischief can be clinically divided into three easily distinguished groups: (1) those with irregularities of rhythm, (2) those with endocardial and valvular changes, and (3) those with manifest signs of decompensation. Not uncommonly the three groups tend to be present together in a given case, each in a varying degree of severity.

Of the three groups, the first is undoubtedly the most frequent. Irregularities of the heart beat with its disturbance of rhythm is readily detectable by the physician in the most simple examination of the heart. When studied by polygraphic or electrocardiographic methods such irregularities are usually found to be due to extra systoles or premature beats, gross perversions of the mechanism of the heart beat like auricular flutter and fibrillation, and finally, depression of the conducting system resulting in the three degrees of heart block.

Concerning extra systoles, little need be said, they are nearly always due to extra-nodal points of irritability which arise in the myocardial tissue during any severe toxæmia. They tend to disappear and are not particularly serious unless they occur with such a frequency as in paroxysmal tachycardia, as to interfere with the proper filling of the left ventricle with subsequent circulatory deficit.

Gross perversions of the pace maker mechanism with the onset of auricular flutter or fibrillation constitutes a hazard which may rapidly terminate in circulatory failure. The process in these cases bears a strong resemblance to that developing in thyrotoxicosis, and it challenges the best methods of therapy for the preservation of life.

Heart block or depression of the conducting system is not an uncommon discovery in postinfluenzal hearts. I have recently published (9) a series of cases demonstrating the three degrees of heart block which may occur. First degree or lengthening of the P-R interval in the electrocardiographic tracing represents a delay in the transmission of the impulse from the auricle to the ventricle. Such cases can only be diagnosed by instrumental methods, but it is of interest to note at this time that such changes are probably more frequent than we have had previous reason to suspect, especially in the very mild or "missed" cases of influenza. In one case which I quote, the original influenzal attack was only of three days duration but cardiac mischief was demonstrable for more than four months.

A further depression of the conducting system results in so-called second degree or partial heart block. In these cases an intermission is noted in

the pulse at the wrist, and upon careful scrutiny the jugular pulsations in the neck are found to be perfectly regular. It can be determined that every third, fourth, or fifth beat is dropped out and a diagnosis of 4 to 3, or 5 to 4 or other numerical rhythm can be correctly established without instrumental assistance. Such partial heart block is usually not permanent, it may appear and disappear in a single day. Its discovery, however, during or after an influenzal attack may be regarded as ominous.

Complete heart block representing a third degree of conduction disturbance with independent auricular and ventricular rhythms is of especial prognostic import. Clinically known as the Adams-Stokes syndrome it usually indicates considerable and often irremediable myocardial damage. While I have never seen it develop in a sound heart during an attack of influenza, patients who have been suffering from myocardial disease may be prone to its occurrence. In the case reported by me (9) return to the original condition required four months of carefully supervised convalescence.

All such irregularities of rhythm as extra systoles, perversions of the pace maker mechanism, and depression of the conducting system occurring during or subsequent to an acute influenzal infection must thus be regarded as evidence of myocardial damage which is often out of proportion to the severity of the acute attack itself. Of special note in this connection is the relatively long period of time required for myocardial repair. A suggestion is thus presented in the regulation of a patient's postinfluenzal convalescence when such disturbances are noted.

The second large group of postinfluenzal effects upon the cardiovascular system is the endocardial manifestation of the disease. Until recently little attention has been directed toward this aspect of the problem. Oppenheimer (10) writing in the Bulletin of the Johns Hopkins Hospital in May of this year describes a case of influenzal bacillus endocarditis which followed a course typical of the more common viridans endocarditis. The blood cultures in this case showed the Pfeiffer bacillus in large colonies. At post mortem, the verrucous vegetations upon the thickened and inflamed valves resembled in many ways the streptococcal viridans disease.

While this condition is apparently uncommon, I have noted one case in my series which undoubtedly suffered valvular disease of a type usually associated with an acute rheumatic infection. A question has arisen whether many endocardial conditions now attributed to a rheumatic origin may not in fact be the result of an influenzal disease in as much as the bone and joint pain believed to be so characteristic of rheumatic affection may also occur in severe influenzal attacks. With closer study, I believe that this group of

influenzal sequelae will assume more importance than in the past

Finally, we have to consider the group of post-influenzal affections resulting in circulatory failure. In this group must be placed the acutely dilated hearts and those cases which show unmistakable evidence of vascular collapse. Acute dilation of the heart while frequently diagnosed is probably not quite so common as was formerly assumed. Ordinarily, the clinical diagnosis is based upon a widened area of percussed cardiac dullness, but when checked by subsequent orthodiagraphic measurements the anticipated increase in the size of the cardiac shadow is not found. Kovács of Vienna has pointed out that the area of cardiac dullness increases faster than the actual widening of the heart itself, this is due to a well established principle of acoustics applied to a circular chamber like the chest.

Relative widening of the heart due to toxæmic myocarditis is usually not seen until after the first week of the disease. All of the dilatation phenomena may be present—tachycardia, mitral and aortic regurgitant murmurs, diffuse apex beat, asynchronism of the valve closures, and if the dilation is great enough to cause axial rotation of the heart, there may be posterior transmission of the heart sounds. Such cases when studied by electrocardiographic methods frequently show QRS-complex changes suggestive of serious myocardial damage.

Cardiovascular collapse with cold and clammy extremities and a generalized cutaneous cyanosis was one of the tragic phases of influenzal infection too often encountered during the great pandemic, every physician can recall these cases quite distinctly so characteristic was the bedside picture. It was believed at the time that the condition was due to widespread and rapidly fulminating pulmonary involvement, an extreme blueness and signs of a severe toxæmia developed early in the attack, sometimes as soon as the second or third day, long before any signs were clinically discoverable in the chest. The name "blue pneumonia" carried an ominous prognosis, for many patients showing this syndrome ran a very short fatal course. I am of the opinion that many of these cases were due to *specific poisoning* of the entire cardiovascular system by the virulent type of influenzal organism present at the time. While it is true that considerable attention has been focused upon the pulmonary involve-

ment associated with this type of case, post mortem examination of the lungs failed to show any close correspondence between the pneumonic process present and the degree of toxæmia and cyanosis occurring during life. Study of the cardiovascular aspect of these cases promises to yield more than that obtained from the many investigations concerned with the purely pulmonary factor of the disease.

SUMMARY

1 Influenza must be placed among those infectious conditions which may cause cardiac mischief.

2 Approximately 4 to 6% of all cases of influenza show subsequent disturbances of the heart.

3 These disturbances are of three general types: (1) irregularities of rhythm, (2) endocardial and valvular affections, and (3) cardiovascular collapse.

4 The severity of the original influenzal attack bears little or no relation to the extent of the cardiac damage.

5 The repair of the cardiac mischief is very slow and it is apparently out of proportion to the extent of the damage discovered.

6 If cardiovascular symptoms appear during or after an attack of influenza, convalescence should be extended until all demonstrable evidence of the affection has disappeared.

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THE PRIVATE PRACTICE OF PREVENTIVE MEDICINE

By PAUL B. BROOKS, M.D.

Deputy State Commissioner of Health Albany, N. Y.

Summary of a Talk before Schoharie County Medical Society, October 19, 1926

THE tremendous development of public health work in the past 25 years has led to the fear on the part of some physicians that their practice will be seriously encroached upon, and that a hydra-headed monster called 'state medicine' is developing and will ultimately become a serious menace. It is a fact that owing to the marked decline in the prevalence of communicable diseases, the diarrheal and other disorders of infants, etc., physicians are attending many less cases of certain kinds than they were thirty years ago. However, as will be pointed out later, there is a compensatory factor if the physician will take advantage of present opportunities.

As for "state medicine," while various public officials and agencies are doing work, such as vaccination against smallpox, administration of toxin-antitoxin, treatment of venereal diseases, and physical examination of school children, all of which strictly speaking is practice of medicine, they are doing these things simply because they are in the interest of public health and it is the duty of "the state" to do them until private agencies, including the practitioners of medicine, are willing and ready to take them over.

Speaking for the State Department of Health, there is no desire or intention to control or take part in the practice of medicine in the state. While, for example, our district state health officers from apparent necessity devote some of their time to administering toxin-antitoxin, we would much prefer that this be done by others so that their entire attention could be given to their numerous administrative duties.

The conflict of interests of the medical profession and the public health agencies is apparent, and not real. The situation demands a readjustment of our conception of medical practice, and possibly also of our ideas of medical ethics. When such adjustment has been brought about, the situation can be met to the mutual advantage of the physician and the public.

The *Buffalo Courier-Express* for October 13th contained one of Glenn Frank's syndicated editorials, this one on "Doctors as Health Masters." Mr. Frank was formerly editor of the *Century Magazine*, is now a College president and a man who is likely to talk sense. He said in substance that if the American people would look to their doctors for the care of their health rather than for the cure of disease "a wholly new order could be established in the world of medicine." The family would secure the doctor's services by the year rather than by the visit, the physicians would endeavor by various means to keep the members of the family well, and would be called at the first hint of sickness rather than after the in-

dividual is seriously ill. He said, "No one knows the number of crippled bodies and cowed spirits that are dragging through life because they dithered and delayed about calling the doctor." The physician could call as often as necessary and stick to a case as long as necessary" without being accused of tee hunting. "Many distinguished doctors" have declared this to be a practical proposition.

At present we wait until sickness occurs. This plan is uneconomical, and at times the illness results in permanent damage which might have been prevented. The public will ultimately see the logic in the old adage that an ounce of prevention is worth a pound of cure, and will be willing to pay at least as well for the ounce of prevention as they are now paying for the pound of cure.

It would seem that a physician who was so inclined could develop a paying practice made up largely of preventive work. The individual who entered into the contract such as Mr. Frank suggests would be providing for himself an insurance against sickness. It will undoubtedly be some time before any such plan will be generally adopted, but in the meantime it is practicable for the private practitioner to practice preventive medicine in connection with his general practice.

There are many things that a physician can do in this line. Some of them are here divided for convenience into three groups:

- 1 Protective inoculations
- 2 Periodic health examinations
- 3 "Other things"

The administration of protective inoculations is simple, requiring no special preparation on the part of the physician. Smallpox vaccination and the administration of toxin-antitoxin are the ones which are outstanding just now. The State Medical Society, the State Department of Health and other organizations have initiated a campaign against diphtheria in connection with which an effort is being made to secure the immunization of the largest possible number of children under ten years of age. The Department is constantly advising people that they take their children to their own physicians for immunization, and the medical society in various ways is trying to interest physicians in doing this work. The toxin-antitoxin is furnished without charge by the department, and a great many people are able—and if converted to the idea would be willing—to pay for this service.

While the Department advises people to go to their own physicians, its primary aim is to secure the protection of the children and the eradication

of diphtheria. We believe that if the children and the family physicians fail to "connect," it is the duty of local health officials to see that the immunizations are provided without unnecessary delay.

When this subject was discussed before two other county medical societies, it was discovered that very few physicians were doing any of this work in their private practices. It would appear that the doctors not only are neglected an opportunity to do a kind of work which is simple and should be reasonably lucrative, but possibly there are also neglecting a duty to their constituents in failing to advise them to bring their children for immunization. We refer to the "five-year campaign." The truth is that immunization against diphtheria is a permanent institution. It will never be done on a sufficiently large scale to make it thoroughly effective unless the general practitioners take it up as a definite feature of practice. Many county medical societies have adopted resolutions endorsing the campaign, but that is not enough.

Group No. 2 was "periodic health examinations." This means examining apparently healthy individuals with a view to discovering defects and slight departures from normal while they are still remediable and giving advice as to how to correct them. While detection of slight abnormalities and advising as to their correction is quite different from diagnosing an obvious illness and prescribing treatment and requires some study and adaptation, it is nevertheless something that any intelligent physician can do if he will.

For convenience I have divided the individuals who should have such examinations into three classes—preschool children, school children, and adults. The department is conducting, mostly in rural sections of the state, what it calls "children's consultations." Children apparently well and mostly of preschool age are given a simple routine examination designed to discover defects. When defects requiring treatment are found, the parents are advised to take the children to their own physicians. Over 2000 children were so referred last year. The idea is not so much to get the children examined as to disseminate the idea of taking children regularly to physicians for such examinations. It is really only a demonstration, and it is always our hope that the work will be taken over by the local physicians. Incidentally, several physicians have told us that their practice among children was increased after the "consultations" had been held in their communities. If the defects were discovered and corrected in the preschool children, there would be no occasion for discussing the next group, namely, the school children.

The State Education Law requires every school district to provide for an annual physician examination of all school children, excepting those who are examined by their own physicians.

Sometimes these examinations are carefully made, sometimes very poorly, but there is no doubt that generally speaking this system has resulted in improved health and scholarship among school children. The family doctor could just as well be making these examinations, but he is doing it mostly in isolated instances. Lack of interest on the part of the medical profession is, at least in part, accountable. When, as occasionally happens, a parent sends a school child to the family physician with the school examination blank, the physician is too apt to look upon this as a more or less foolish requirement and to fill out the blank in a perfunctory way, entirely overlooking the fact that the examination should be of real value to the child. There is little doubt in my mind but that boards of education would much prefer to encourage the parents able to pay to take their children to their own doctors instead of having them examined by the school physician, if they could be reasonably assured that the examinations would be made with care and thoroughness. It would save money for the school district and increase the practice of the physicians.

The department through its radio health talks and in other ways is constantly advising adults to go to their physicians periodically for "health examinations." A few years ago we sent out to the physicians of the state, outside of New York City, sample copies of the American Medical Association health examination blank with letters urging the physicians to be prepared to make the examinations when people applied for them. Several county medical societies have adopted resolutions endorsing the idea, but apparently few physicians take it seriously insofar as their own practices are concerned. One of our representatives who spends her time giving health talks to women in rural communities always advises these women to have such examinations made. On more than one occasion on going back to a community she has been told by some of these women that, after hearing her talk, they had gone to their doctors and asked to be examined, but that the doctors had treated the subject lightly, telling them that there was nothing wrong with them and that they did not need examinations. A former president of the State Medical Society in my presence said that with no thought of "stirring up business" he had explained the health examination idea to a group of men when he met them in a social way. Not long afterward some of them came in requesting examinations. No doubt each of them paid him a reasonable fee. It would not be difficult to conceive of a practice being made up quite largely of this kind of work which should be both pleasant and fairly lucrative. A physician could afford to examine a poor person now and then without charge for the sake of experience.

As to the "other things" which the physician could do in this line I will not take the time to

enumerate them, but there are several which could be mentioned

The very practical question that arises is this Can people be prevailed upon to go to their physicians for this kind of service and to pay for it? I have already cited the experience of one physician If he could interest his friends in a matter of this kind, other physicians could do it It is a well known principle in advertising that people can be led to do almost anything within reason if you keep the idea constantly before them We are willing to do our best to promote the idea if the physicians will do their part However, any storekeeper knows that if he advertises a sale and then fails to produce the goods, it will not be long before his advertisements will be disregarded It is equally true here

It is a question whether physicians are not allowing themselves to be hampered in connection with this work by too rigid adherence to a code of ethics, some features of which may be out-

grown He hesitates to do anything which might be construed as stirring up business As far as preventive medicine is concerned, I believe he is failing to do his duty both to his client and to himself unless he points out to those who look to him for advice the importance of having these things done For example, I believe not only that it is justifiable but that it is his duty to invite the heads of families who ordinarily come to him to send their children in for immunization against diphtheria He should "get off his high horse" in the common interest

In conclusion, if public health work is taking away something from the doctor's practice, it is putting something in its place if he is willing and ready to accept it He has an opportunity to improve his practice and perform a public service at the same time By following this course it is not impossible that the modern physician might again become the "family adviser" like the doctor of the old school

HOW MUCH OF THE INVESTIGATION ON THE SUBJECT OF REJUVENATION IS SCIENTIFIC?

By WILLIAM WOLF, M.D., Sc.D., Ph.D., NEW YORK CITY

REJUVENATION is no new subject The search for lifelong youth or regaining youth which has been lost is many centuries old. The literature on this topic, both scientific and fanciful, is most abundant Some of the writings report carefully controlled experiments, others are entirely unscientific and sometimes fictitious

Many of the authors, and particularly newspaper writers, are entirely incompetent to discuss their subject Human interest and a tendency to dramatic exaggeration seem to be their guides, rather than cold, hard facts The result is that the gullible public is readily misled

There seem to be three principal reasons for the general misunderstanding as to the true status of rejuvenation In the first place, newspaper reporters, reading an article in some medical journal dealing with this subject are too prone to link the actual facts with some fairy tale that they read in their childhood with the result that, instead of a sober report of certain histological and physiological changes observed, for instance, after trying the vas deferens, they turn out a thrilling story of how some decrepit, old man was restored to the appearance and vigor of dashing youth by means of a simple operation or the implantation of "monkey glands" (a favorite term among the general public) Thus the established experiments of science become confused with the shady speculation of monkey gland therapy, with the result that the entire subject is brought into discredit.

A second reason is that aging is a rather in-

definite entity showing manifestations in widely different parts of the body and producing widely different effects in the same part of the body Whenever we have to deal with such a condition confusion is inevitable and, unless the problem is split up into definite entities, semi or non-scientific writers and workers are quick to grasp the opportunity for their own ends thereby causing still greater confusion This has never failed to happen whenever a fad has come into vogue or whenever the relationship of a local condition is linked up indefinitely with the general condition of the body We do not need to search very far for examples We all had to suffer from overzealousness in appendectomies, tonsillectomies, tooth extractions, cancer treatments, etc.

The third cause of confusion is a misunderstanding as to exactly what is meant by the term "rejuvenation" If this term were clearly defined, much of this confusion with regard to this subject would disappear It is, therefore, in order to discuss the meaning of the word

There are four different points of view from which rejuvenation may be considered

- (1) Rejuvenation of the external appearance,
- (2) Restoration of diseased organs to health,
- (3) Mental rejuvenation,
- (4) Cellular rejuvenation.

(1) By rejuvenation of the external appearance is meant the application of measures to make the skin smooth and healthy looking We may in-

clude the use of massage, astringent creams and lotions and other cosmetics. In this group also may be mentioned various beauty specialty operations, such as lifting the skin of the face and neck, and exercises for the reduction of weight.

At times, this external rejuvenation is fairly successful, but we must remember that not only the face and neck but also the hands, arms, and breasts show signs of age. These latter regions must also be treated, otherwise, the artificiality of the subject's youth will be obvious. Furthermore, if youth is to be simulated, we must take into consideration the subject's carriage and conversational voice. The old person has a manner of walking and a pitch and quality of voice that stamp his age. These attributes also must be modified. Although it is alleged that, when a person looks younger, he feels, acts, and actually is younger, most of us will agree that the rejuvenation of the external appearance is merely a makeshift and does not materially lengthen the span of youthful and useful life or actually make the body younger.

(2) The second method of rejuvenation aims to bring the organs of the body to a healthy condition and maintain them in this state. The entire body economy is dependent principally on a properly adjusted intake of food and air (and possibly mental influences) and a proportionate elimination of waste products.

The above contention is borne out by a well known experiment conducted at the Rockefeller Institute. A strain of fibroblasts obtained from an embryo chicken heart has been kept alive for more than ten years outside of the body by immersing it in a suitable culture medium, feeding it regularly with nutrient solution, and renewing the medium so as to provide for tissue elimination. This experiment has been fully described by Ebeling.¹

On the basis of these premises, it may be assumed that the organs of the body may be kept young by keeping the organs of intake (upper gastro-intestinal tract, respiratory and nervous systems) and those of elimination (urinary system, lower gastro-intestinal tract, skin and respiratory system) in perfect working order.

The other parts of the body, namely the muscles, bones, genital tract, circulatory system, etc., may be considered as the framework and accessory paths necessary to support and provide for the activity of the vital organs of nutrition, elimination, and reproduction, while the endocrine system acts as a governing and synchronizing system to see that each organ performs its function properly and to the best advantage for body economy. Their importance, from the standpoint of rejuvenation, lies solely in the fact that, without them, the organs of reception and rejection would be unable to exist and the species could no longer propagate its kind.

(3) Mental rejuvenation, the third phase of this

topic, is based on the conception that, if one thinks in terms of youth, health, vigor and strength, the whole body will adapt itself to that point of view and produce a mental and nervous equilibrium that will allow the various organs to function perfectly. This general principle is utilized, to a large degree, by the various cults of mental healers. Many of them base their methods on religious precepts and in some instances where the author has come in personal contact with East Indians certain individuals have succeeded in appearing, acting and feeling like others one-third their age. This subject is fully discussed by Paulsen² in a series of articles in the *Journal of the American Medical Association*.

(4) The fourth conception of rejuvenation rests on the foundation of the cellular structure of the body. To understand cellular rejuvenation, let us consider the life cycle of one of the simplest forms of animal life, namely, the paramoecium (slipper animal).

As is well known, the paramoecium, a unicellular animal has two methods of reproduction,³ namely (1) direct reproduction or fission and (2) indirect reproduction or copulation. The usual form is by fission, that is, the animal cell simply breaks into two bodies, which become independent organisms. Reproduction by fission may take place for from five to twenty generations, but, thereafter, the paramoecia die unless copulation occurs. During this process two of the animals join and some of their protoplasm is exchanged. Consequently, each of the two forms that result contains elements derived from two parent cells, whereas, when reproduction takes place by fission, there is but one parent cell.

When two paramoecia conjugate, definite changes take place in their micronuclei, whereby each organism receives a fragment of the other's nuclear substance. Preceding this exchange of nuclear material a complicated series of changes takes place in the intracellular substance of the animals that are about to conjugate. As a consequence of conjugation, there is a definite fusion of the residual nuclear material with that derived from the other animal. The result is that an entirely new micronucleus is formed. After the two paramoecia have exchanged nuclear substance, the animals separate. After copulation reproduction by fission may take place for from five to twenty generations more. Woodruff⁴ has cultivated them for more than fourteen years. In many respects, this organism may be considered as potentially immortal.

A system of reproduction somewhat similar to that of the paramoecium has been observed in animals a little higher in the evolutionary scale according to Pearl,⁵ a few of the simplest and least organized groups of the metazoa have a power of multiplication by simple fission, whereby a portion of the organism buds off and gives rise to a new form.

It would seem, that, during the exchange of protoplasm, a true rejuvenation is brought about, that is, the vitality of the cell is brought to the same state in which it was ten generations or so previously.

To my knowledge no life cycle of the type exhibited by the paramoecium has been observed in the cells composing the organism of man or the higher animals, but it is clear that a physico-chemical or bio-chemical reaction is started or brought about which differs from that going on in the aged animal. To find out what this reaction is should be the task for the competent research workers.

This subject would also take in the question of inert materials within the cell. It is a well known fact that cells of an aged subject or animal contain a considerably greater amount of intracellular burden material than those of a younger one. Also, the kind of inert matter seems different. This fact can be observed even grossly as many surgeons have noticed during operations.

How, then, could a true rejuvenation be brought about? If by some means we can stimulate or cause intracellular chemical changes to occur analogous to those above-mentioned, and if we can prevent the deposition of inert material within the cell and between the cells, and if we can prevent formation and absorption of toxins which make proper nourishment and elimination difficult, we have made a very decided step in the right direction.

In other words, there is no reason why the cells of the human body and their combinations should not be able to renew their vitality in the same manner as the paramoecium if it can be found what constitutes aging of the cells and their constituent parts and how this process can be prevented. This study should form the basis of research in the subject of rejuvenation.

It seems to me that the use of the term rejuvenation should be restricted to the cellular conception. Such a clear definition of the term would do much to bring the subject into the realm of science and out of that of fiction and charlatanism.

The first three viewpoints of "rejuvenation" discussed should be called *invigoration* or *bodily improvement*. The use of the term rejuvenation to describe these methods of treatment is incorrect, misleading, and ambiguous and offers too great a temptation to fiction writers and quacks.

To my mind, all scientific study with regard to true rejuvenation should be conducted with a view to bring groups of cells, the cells and their constituent parts, back to the state of vitality that they enjoyed a certain number of generations previously. At least, one should attempt to renew the vitality of the cells and so prevent or delay their aging so that the various cellular combinations which compose tissues will not be subject to disintegration.

The form of rejuvenation that is alleged to be induced by ligation or section of the vas deferens requires discussion. It has been stated by Steinach and Schmidt⁶ that, as a result of this procedure the germinal cells atrophy, spermatogenesis is largely inhibited, and the interstitial cells of Leydig increase in number and activity. As these interstitial cells are reputed to elaborate the hormone responsible for the libido and the development of the secondary sexual characteristics, it is apparent that an influx of their secretion into the blood stream should change the endocrine balance of the body. According to Steinach's⁷ reports ligation of the vas deferens has, in a certain proportion of cases, increased activity and sexual vigor for periods lasting from six months to several years.

In many of the animal experiments with ligation of the vas deferens, results, while promising, have not been permanent. For example, Macht and Teagarden⁸ of Johns Hopkins University, performed ligations on six senescent rats. There was distinct improvement in the general appearance and behavior of the animals. They were more active, and some of them developed a new coat of fur. However, the improvement lasted only for few weeks, after which the animals lapsed into their former aged condition.

According to Oslund⁹, the idea of bringing about rejuvenation by means of ligation of the vas deferens had its origin in experiments on rabbits, rats and guinea pigs. However, there has been one serious error in these experiments. The changes after this operation, according to Oslund are due, not to vasectomy, but to artificial cryptorchidism. In operations on dogs in which Oslund was very careful not to leave the testes in an unfavorable location, degeneration of the germinal cells did not follow. Following such vasectomy, the interstitial cells were normal both as to number and appearance.

In the case of women and female animals, similar results¹⁰ have been reported after subjecting the ovarian parenchyma to the action of X-ray or diathermic electric currents. This was done with the idea to allow the subjacent ovarian substance to increase in size and activity. Recently the writer has applied gamma rays of radium for the same purpose. The results have been considerably better and more permanent than those from tying off the spermatic duct in the male.

Writers who have been impressed with the "rejuvenating" influence of the internal secretions of the sexual glands have applied to the interstitial cells supposed to be responsible for these secretions the picturesque name of "puberty gland." It is doubtful, though, whether there is such a thing as a puberty gland, that is, whether the interstitial cells of Leydig actually do give off an internal secretion. Steffen,¹¹ of Leipzig, who has made a thorough investigation of the subject

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origin result from injuries to the vaginal walls, subjacent structures and cervix

The diagnosis of bleeding from *external causes* should not be difficult, if the practitioner will but remember that a *contracted or contracting uterus* will not bleed—hence vaginal bleeding which occurs when the uterus is firmly contracted must come from some cause other than atony and its source should be readily detected by exposure and inspection of the parts. Likewise the treatment in these cases is *simple and direct*, namely, the application of a suture ligature or proper closure with sutures of the cervical, vaginal or perineal wound

(b) Internal traumatic hemorrhage is the term applied to traumatic bleeding in which the blood instead of escaping externally flows into the perivaginal or perivulva tissues producing hematomata. The cause is rupture of a varix in one of the subjacent tissues due to obstruction to the venous return by the firmly wedged head—fortunately, it is of very rare occurrence, though the incidence of hematoma of the vulva is such as to fall within the experience of most obstetricians

Hematoma of the Vulva The tumor appears suddenly and is accompanied by severe local pain in one or the other labia. It is globular in shape, elastic in consistency, purple in color, exquisitely tender to touch and gradually increases in size, while ecchymosis is observed in the adjacent tissues

Should the bleeding occur beneath the vaginal wall in the loose cellular tissue of the perirectal space, the pain in the region of the rectum is intense. Some of these internal hemorrhages occur beneath the peritoneum where they may be recognized as a sensitive tumor depressing the Douglas sac and filling one or both of the lateral vaginal fornices. Hematomata may terminate

(1) In rupture with external hemorrhage and death or the bleeding may be controlled and the patient react from her shock

(2) Or it may become a dissecting hematoma extending beneath the peritoneum reaching the perineal space or dissect its way downward into the perineum.

(3) Or the tumor may absorb

(4) Or it may become infected and suppurate

Treatment The treatment is usually expectant unless the tumor mass becomes infected when incision and drainage is desirable

Atonic Hemorrhage Atonic hemorrhage as the name implies is the result of failure of the uterine muscle to contract and the bleeding occurs from the unclamped sinuses in the placental site

When one realizes how separation of the placenta takes place and that only by contraction and retraction of the uterus do the vessels become closed by compression and kinking, it is

not difficult to appreciate why the uterus bleeds. Normally the healthy woman is fortified against the inevitable blood loss of the third stage of labor by the increase in the total amount of blood, the greater amount of contained fibrin and a leucocytosis

Hemorrhage which occurs during the detachment and expulsion of the placenta is normally checked by the united action of three factors, namely

- (1) Uterine contraction
- (2) Uterine retraction
- (3) The formation of thrombi in the mouths of the vessels

Atonic hemorrhage is to a greater or less degree a preventable accident which has many predisposing causes, all of which are more or less controllable in the hands of a competent attendant. While faulty management of the third stage is the most common etiological factor, prolonged labor with *physical exhaustion* or the *prolonged use of anaesthesia* in the second stage are also contributing factors. Furthermore, it is admitted that the *generally weak blond or red-headed women* who have slow labors, tend to lose more blood in the third stage than their darker sisters. In addition, *over-distension of the uterus by twins or hydramnios*, the *presence of tumors, disease in the uterine wall*, or the *too rapid emptying of the uterus*—as in precipitate labor or manual extraction, have a contributing effect

The physiology of the third stage theoretically prevents bleeding by contraction and retraction of the uterine muscle. The steps which take place successively in this stage are

- (1) The separation of the placenta by the formation of a retro-placental blood clot
- (2) Expulsion of the placenta by uterine contractions
- (3) And contraction and retraction of the uterus

The uterine sinuses lying as they do between the muscle lamellae and muscular bundles which when the uterus contracts are crowded together and overslide one another, *bend, twist and compress* the uterine sinuses and thus arrest the current of blood flowing through them. Even the uterine arteries at the side of the uterus become more tortuous and their lumen is decreased as the uterus retracts. All of this takes *time and pain, and cannot be hurried except with danger to the patient*

Could we but teach the practitioner that the management of the third stage was along the physiological lines and that these physiological processes cannot be interfered with, few women would lose any considerable amount of blood

Another practical observation which has a direct bearing on the production of uterine atony, is the practice of beginning the use of anaesthesia

claims that they do not, while a great many other observers, particularly the school of Steinach are perfectly convinced that they do

However, it must be admitted that there is a vast difference between the temporary increase of vigor and sexual activity that follows an enhancement of this endocrine activity and true rejuvenation

Altogether, I believe that the methods of vas deferens ligation and irradiation of the ovary, although it certainly greatly improves the vitality of the subject and helps in bringing about a better endocrine balance, should be considered under the heading of invigoration rather than that of rejuvenation

We must also keep in mind that indiscriminate temporary invigoration may have serious dangers connected with it unless a thorough clinical survey is made first to determine whether the increased pace of existence will not throw too great a strain on certain vital organs. When one applies for rejuvenation he is usually at an age when the heart, kidneys, arteries, etc., are more or less damaged and although these may be perfectly adequate for the activity that the individual had been used to, they might become seriously injured if a decidedly greater strain is thrown upon them. Consequently, in such a case, unless one proceeds very carefully, a shortening of life instead of a lengthening would result

It is hoped, then, that in future discussions on the subject of rejuvenation the meaning of this term will first be clearly defined. Then, much of the confusion which has clouded the subject will be avoided

SUMMARY AND CONCLUSIONS

I Much of the confusion that surrounds the subject of rejuvenation is due to the fact that the term is not clearly defined. It may be considered from four different angles, namely

- (1) Rejuvenation of the external appearance,
- (2) Restoration of diseased organs,

- (3) Mental rejuvenation,
- (4) Cellular rejuvenation

II The truest example of rejuvenation furnished by nature is the life cycle of the paramoecium. This unicellular animal procreates for from five to twenty generations by simple fission. Then copulation with another organism is required, otherwise it will die. The copulation has a true rejuvenating influence

III The term rejuvenation should be limited to a cellular return to youth, i. e., the cells should be so changed as to be in a condition in which they were when they were younger. Only when the cells of the body themselves are restored to youth can the term be applied properly

IV Attempts to restore youth by means of ligation or section of the vas deferens or exposure of the ovaries to X-rays or electric currents are not methods of true rejuvenation. Here, as well as in the case of the first three methods of so-called rejuvenation described, the term "Invigoration" should be used

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POST-PARTUM HEMORRHAGE*

By JOHN OSBORN POLAK, M.D., BROOKLYN, N. Y.

THERE is no obstetric emergency that so seriously jeopardizes the patients' life, that calls for such sure and prompt treatment for its relief, and in which all of the courage, resource and skill of the obstetrician is so suddenly put to the test as in a severe case of post-partum hemorrhage—yet, in the opinion of many obstetricians this is a wholly preventable accident. To this teaching, however, I do not fully subscribe, for post-partum hemorrhage does and

always will occur in the practice of midwifery as long as women bear children

Post-partum bleeding has two general sources of origin.

- (1) From birth traumatism
- (2) From uterine atony

Traumatic hemorrhage may be the result of either external or internal trauma

(a) Of the external causes the most common are lacerations occurring about the clitoris, bulbi, perineum and vulva, while those of internal

* Read at the Annual Meeting of the Medical Society of the State of New York, at New York, March 31, 1926

the sinuses—if left in situ for too long a time the uterine muscle tires and good retraction is not obtained

In closing we will call attention first to the fact that sometimes post-partum bleeding is an unavoidable accident, that the cause is always due to traumatism or in the placental site. Injuries

should be sutured—while in the atonic type the uterus should be encouraged to contract by drugs, manipulation and pack, and, finally, that bleeding predisposes to more bleeding, hence active treatment should be begun at once and our measures should be prompt and effective

DIAGNOSIS OF ACUTE PERFORATION OF PEPTIC ULCER*

By CHARLES GORDON HEYD, M.D., NEW YORK

IT is a matter of common knowledge that acute gastro-duodenal perforations are sometimes mistaken for acute perforative appendicitis. The anatomical conformation of the pylorus, duodenum and transverse colon permits the seepage from a perforation in the neighborhood of the pylorus to flow to the right above the transverse colon and then to gravitate downward along the outer side of the ascending colon, and manifest itself, after a few hours, by an inflammatory accumulation in the right iliac fossa. Upon the assumption that it is a case of acute appendicitis, appendectomy is performed, and the real pathological process is unrecognized.

Perforation is the most serious and lethal complication that may occur in the biological history of peptic ulcer. It is always an indication for surgical intervention and imperatively demands immediate diagnosis. Perforation may occur in any type of ulcer—acute or chronic, at any age, at any time, with or without previous symptoms, with or without premonitory signs. Aside from the isolated and relatively infrequent cases where perforation takes place without any previous dyspepsia or gastric disturbance, it occurs as an end-result of chronic peptic ulcer, and while the perforation is acute the ulcer has been present for a variable period of time.

Furthermore, it is to be noted that in the majority of cases where perforation occurs there has been an increased activity both in the pathology of the ulcer and in an exacerbation of the symptoms previous to the moment of perforation. In an ulcer that is about to perforate there are signs of the impending disaster. The patient who has heretofore had a periodic pain, occurring in more or less definite cycles, finds that the pain is becoming constant in character, steady, localized and is not benefited by measures or medicaments that have heretofore availed. The interpretation to be made of this change from a periodic gastric pain to a constant pain is that the peritoneum is becoming inflamed by exudation and that the ulcer is potentially perforating. There is some slight difference in symptomatology depending upon whether the

perforation is gastric or duodenal. The more bulky and less sterile gastric extravasations are in contrast with the greater fluidity of the duodenal contents, and although they modify they do not change the essential features of the symptomatology.

Perforation is essentially an accident in the clinical course of a peptic ulcer, and like all accidents, occurs with dramatic suddenness. The initial symptoms of perforation, and those upon which the diagnosis should be made, are due to the actual mechanical perforation and the chemical assault upon the unguarded peritoneum by the extravasation of gastric or duodenal contents. To wait for the symptoms of the subsequent bacterial peritonitis in order to make a diagnosis is to delay until the mortuary rather than the operating amphitheatre receives the patient.

In abdominal diagnosis it is essential to distinguish the two types of pain that are exhibited most frequently in gastro-intestinal pathology. The first type is that of "colic" and the pain of colic is intense, sudden, acute, but always intermittent, with intervals of complete relief from suffering. It is ordinarily the result of an irritative and functional lesion and is due to hyperactivity of non-striated muscle fibers with spasm. The second type is acute, sudden, intense and always constant, with no intervals of relief. This type is due to actual inflammation of the peritoneum and is the result of perforation and exudation. In the beginning this latter type of pain is localized to the area of exudation, later it becomes more general and extensive. It is always associated with a fixed, tense, immobile body posture in contrast to the restlessness and movement in "colic." In these outstanding points of pain differentiation, we have the key to the diagnosis of acute perforation of the gastro-intestinal tract. In perforation of a peptic ulcer pain is the outstanding symptom, abdominal rigidity the most distinctive physical sign and immobility of body posture the most noticeable feature. Time does not permit nor is the available laboratory data of any noteworthy importance in arriving at the diagnosis in the early stages.

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too early in the second stage and thus getting the cumulative effects of the anaesthetic on the contractility of the uterine muscle. This is seen particularly in those clinics where operative delivery in the second stage of labor is the rule, and the patient who has been anaesthetized to a surgical degree, is delivered by forceps or version and not allowed to come out of her anaesthetic, and spontaneously expell the placenta before the repair of her birth injuries is begun. Such practice not infrequently results in atony and bleeding.

Prolonged labor in a patient who has not had sufficient rest is another cause for uterine relaxation, as is also the presence of tumor masses in the uterine wall.

In an experience covering a number of years in which all methods of placental stage management have been employed, and the results of these carefully checked by an accurate measurement of the blood loss—we have come to the conclusion that the smallest blood loss will result in those cases in which after the delivery of the child, the cord is clamped close to the vulva, and no uterine manipulation *whatsoever* is employed to express the placenta, until the signs of placental separation appear. These signs are classical, namely

- (1) Descent of the cord
- (2) The appearance of vaginal bleeding
- (3) The rise of the fundus—and the change in the shape of the uterine body

Not until these evidences of separation occur should any expression be made—and, coincident with this expression, an ampule of pituitary extract is given hypodermatically. A routine such as this followed in several thousand cases has resulted in an average blood loss of less than 200 cc.

The so-called Duncan separation or Duncan mechanism is, in our opinion, the result of a low implantation of the placenta. Over-activity on the part of the attendant. Even a low placenta will normally separate by a Schultze mechanism if the obstetrician will but keep his *mind on the steps of the physiological process and his hands off the uterus*.

Bleeding during the third stage—not of traumatic origin must naturally be grouped into bleeding which occurs *before the placenta is delivered* and hemorrhage *following its delivery*. Therefore in the treatment of bleeding from atony a sharp distinction must be made between the bleeding which occurs before the placenta is delivered and that which continues after its expulsion from a relaxed uterus.

In the former, the placenta must be immediately expelled or removed before other remedial measures for the control of hemorrhage are instituted. This may be done by Crede at the acme of the contraction, or by manual extrac-

tion. *One point that must be stressed is*, that the larger the quantity of blood loss the greater is the tendency toward subsequent atony. Furthermore, a slow but long continued bleeding is more often fatal than a sudden loss checked and the shock combated. Therefore, *it should be an axiom that post-partum bleeding, however slight, should be promptly controlled*.

Bleeding from the placental site is naturally associated with a relaxed uterus, consequently the effort of the obstetrician must be directed toward securing contraction and maintaining uterine retraction. This is done by three procedures

- (1) Drugs
- (2) Manipulation
- (3) The uterine and vaginal tamponade

The historical methods which include the use of styptics, faradism, ice, intrauterine douche, etc., have gone out of vogue and properly so—as have abdominal compression by various mechanical devices and the use of the Mombert belt.

Immediately on the appearance of hemorrhage, after the placenta has been delivered, the woman should be given a hypodermic of an ampule of pituitrin. This should be supplemented by the intramuscular use of Ergone, Gynogen or Ergotol. These drugs act as prompt oxytocics. Coincident with this hypodermic medication the uterus is raised out of the pelvis by spanning the lower segment with the thumb and forefinger and forcibly compressing it against the bifurcation of the aorta as it crosses the sacral promontory, while the other hand on the fundus rubs the organ into contraction. Absolute control of the situation may be had by this maneuver—if the compression is carried on long enough, say, one or two minutes by the clock, for the uterus will contract, clotting occur and the bleeding cease. Crowding the uterus down into the pelvis and constantly expressing clots always increases the amount of blood loss. It is far better should stimulation fail to cause contraction, for the obstetrician to place his gloved hand in the uterine cavity and leave it there as a tampon until contraction occurs.

By following the above routine it is more than five years since we have had to pack the uterus for hemorrhage. When pituitrin, ergot and manipulation by the above technique fails to control the bleeding, the uterus, cervix and vagina should be firmly packed with sterile gauze, which will always arrest the hemorrhage—unless the woman has lost so much blood that contraction and retraction cannot occur.

One point regarding the intrauterine pack should be stressed, namely that when contraction and retraction have been obtained, the pack should be gradually withdrawn this allows the uterus to clamp down upon it and so compress

abdomen than one would be warranted in ascribing to an attack of appendicitis. In addition, physical examination will demonstrate that the area of maximum rigidity is in the epigastrium rather than in the right lower quadrant. The sequence of events in perforation point to a primary upper abdominal lesion with secondary or descending abdominal involvement rather than the ascending peritoneal involvement of an acute appendicitis.

Acute cholecystitis or cholelithiasis should offer little difficulty in diagnosis. Gall bladder disturbance is preeminently a disease of women. The history is all-important as there has probably been previous attacks, and a long history of "gaseous" indigestion. Gangrene and perforation of the gall bladder is fortunately very rare. Here again a history of previous attacks of biliary colic is all-important as well as the sex predilection. Furthermore, gall bladder perforation tends to local exudation and local peritonitis with intense localized pain and localized rigidity.

Acute pancreatitis presents the same dramatic suddenness of onset with agonizing pain as perforation. The condition is, as a rule, found only in florid, thick-set males and very rarely in fe-

males. In pancreatitis the pain, while severe, is transverse, midabdominal, front and back. The pulse is from the beginning bad. The peritoneal reaction and rigidity are localized and epigastric. The facies is different with its lividity, and the breathing while restrained is without catch. The vomiting is early, continuous, persistent, and suggests high intestinal obstruction. Acute intestinal obstruction seldom presents the dramatic characteristics of acute perforation. There is the etiological factor for obstruction—hernia, previous laparotomy, etc. The pain of obstruction is colicky, without marked rigidity. Restlessness is always present. Vomiting is continuous, with rapid changes in the quantity and character of the vomitus.

In conclusion, it is evident that the pathological conditions which must be differentiated from acute perforation, whether it is gangrenous gall bladder, perforative appendicitis, acute pancreatitis or acute intestinal obstruction, are by and of themselves conditions which demand immediate operation. The final word is for early diagnosis and early surgery for the conditions under consideration are all surgical and admit of no other therapy.

UNDULANT FEVER

By RUTH GILBERT M.D., and PAUL B. BROOKS, M.D.

From the New York State Department of Health

"UNDULANT fever" is a term of recent development which, as now commonly used, covers two conditions, i.e., the so-called Malta fever, which is incited by *B. melitensis* and is transmitted to human beings through goat's milk, and another condition arising from infection of human beings with *B. abortus*, an organism responsible for contagious abortion, a disease prevailing extensively among dairy cattle. It now appears that undulant fever of bovine origin occurs not infrequently among human beings and that it creates a problem in the sanitary control of milk similar to that relating to tuberculosis.

B. melitensis and *B. abortus* appear to be closely related and can not ordinarily be distinguished from each other in stained specimens. In milk both would be destroyed by pasteurization at 142° F. for 30 minutes.

Clinically undulant fever may resemble typhoid fever, miliary tuberculosis, malaria or endocarditis, the fever being protracted and "undulating" between normal and 102 to 105 degrees. The spleen is usually enlarged and the lymphocyte count increased, while the number of polymorphleucocytes is not above normal. The infection has a tendency to localize, as in the joints or endocardium. The diagnosis is made in man

through blood cultures, serological tests and animal inoculation.

On November 12, Dr. C. M. Carpenter of Cornell University, at a meeting of the state association of public health laboratories, read a paper prepared by Dr. V. A. Moore, dean of the veterinary college, on "*B. abortus* in Cattle and Man." They have observed several previously undiagnosed cases of this infection in man and others have reported finding this organism in cases of human abortion. In cows, according to these observers, the infection is primarily one of the placenta. The organisms appear in the milk of about 60% of infected cows, while about 30% of the herds examined at Cornell were found to be infected. Passage of the bovine organism through human beings appears to "step-up" its virulence. Cows infected with human strains abort usually within 20 days, while abortion following bovine infection ordinarily does not occur under 6 weeks.

The existence of undulant fever should be suspected in all cases of prolonged febrile reaction in which diagnosis is not clear. Blood—about 10 cc.—should be collected in sterile tubes and a similar amount collected in Keidel blood culture outfits, these specimens being sent to the laboratory immediately for examination.

The pain of perforation is equaled by few and excelled by no other abdominal condition. The onset is sudden, like a bolt of lightning, constant after its appearance, agonizing, unbearable, without any intermission or free intervals as in colic. The pain is made manifestly worse by the slightest movement, and as a result the patient remains in a fixed, tense, immobile posture, usually on his back, with knees flexed. There is not only a disinclination to move but a fear of changing his posture so greatly does bodily movement aggravate the pain. In the beginning the pain is invariably upper abdominal, but rapidly spreads over the entire abdomen. There is a generalized abdominal tenderness which is present almost simultaneously with the onset of pain. The abdomen is rigid to a degree unequaled by any other abdominal condition. The muscles are board-like and retracted. The rigidity is complete and absolute, and does not lessen or abate until death is imminent. The intenseness of the abdominal rigidity is uninfluenced by the will or relaxation upon the part of the patient. With the progressive development of peritonitis, there will be intestinal distention and a lessening of the abdominal retraction, but no relaxation in the intense rigidity. In the beginning the rigidity may vary in some degree in different portions of the abdomen. The most exalted sensibility of the peritoneum is in the neighborhood of the foramen of Winslow, and hence the greatest pain and tenderness are exhibited beneath the upper right rectus muscle. Gentle palpation usually reveals that the greatest degree of rigidity is also in the same area. Percussion of even the lightest kind is painful and resented.

The diaphragm is an abdominal muscle and is held in spastic rigidity. The respirations therefore, are entirely thoracic, of the superior costal type, ending in an expiratory "catch," usually accompanied by an exclamation or groan. The face is pale, alert, anxious, with "beads of sweat" on the forehead. Contrary to the usual conception there is little, if any, shock in the early stages. The reaction of different people to agonizing pain is varied, and while shock may occasionally be observed, its presence or absence is a sign that is not noteworthy and of little diagnostic import. The pulse is hardly accelerated in the first few hours of perforation. The temperature is likewise normal or very slightly elevated. When peritonitis begins to dominate the clinical picture there is an uninterrupted acceleration in pulse rate, with a proportional depreciation in quality and volume. Each succeeding hour the pulse becomes progressively worse. Nausea and vomiting are so frequently associated with any disturbance of function in the gastrointestinal tract that they have no place as diagnostic criteria in the diagnosis of perforating ulcer. Vomiting, when it occurs, is more prominent in duodenal perforation than in gastric,

for in the presence of a perforating duodenal ulcer the stomach is intact and the peritoneal reflex of vomiting will empty the gastric contents, whereas in the perforation of the stomach it will be much easier for the gastric material to escape into the peritoneal cavity than up through the cardia and esophagus.

The obliteration of liver dullness is an inconstant and late sign, for a distention—intra-peritoneal or intestinal—which will obliterate liver dullness marks a stage of generalized peritonitis. In the early hours there is a moderate leucocytosis and polynuclear count, 16,000 to 18,000 leucocytes, with polynuclear percentage of 80 to 85. These should not be taken either for or against the diagnosis except that the presence of a leucocytosis and an increased polynuclear count would eliminate the anginas and the abdominal crises of tabes.

The differential diagnosis will embrace an elimination of the various forms of angina, acute thoracic disease, cholelithiasis, cholecystitis, acute hemorrhagic pancreatitis, acute intestinal obstruction, acute perforating appendicitis and possibly ectopic gestation. The onset of an angina, is, as a rule, sudden, with intense pain, and with the same anxious expression that goes with acute gastroduodenal perforation. Nausea and vomiting may or may not be present in either condition, and is of no value for or against the diagnosis. The patient, however, with an acute peptic perforation will remain fixed in one position as movement exalts the intensity of the pain. The patient with an angina, on the contrary, is restless and changes his position from time to time. The distinguishing features of perforation are the intense degree of abdominal rigidity and the fact that the patient maintains a fixed, tense posture. In acute thoracic disease—pleurisy, central pneumonia, basal pneumonia, diaphragmatic pleurisy—the elevation of temperature is important and the rapidity of respiration significant. While the acute perforation has shallow "catchy" respirations they are not, as a rule, markedly increased in frequency, and an outstanding feature in thoracic conditions is the disproportion that exists between pulse and respiration, as opposed to the normal parallelism of pulse and respiration in acute perforating ulcer. Within a few hours after perforation, by reason of seepage into the right lower quadrant, there is exquisite tenderness and pain over the area of the appendix, but in differentiating acute perforated appendicitis one should remember that the initiatory pain of appendicitis is colicky, intense, but with interrupted or clear intervals. The rigidity is not, as a rule, generalized. There is no catch in the breathing. The facies has neither the anxiousness, the pallor, nor the fear that is present in acute perforation. Moreover, the patient will localize the point of maximum pain and tenderness in perforation at a point higher in the

abdomen than one would be warranted in ascribing to an attack of appendicitis. In addition, physical examination will demonstrate that the area of maximum rigidity is in the epigastrium rather than in the right lower quadrant. The sequence of events in perforation point to a primary upper abdominal lesion with secondary or descending abdominal involvement rather than the ascending peritoneal involvement of an acute appendicitis.

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For list of officers of County Medical Societies, see JOURNAL of October 1, 1926, advertising page xxvi.

THE DINNER TO DR. DOWNING

The significance of the Medical Practice Act is becoming apparent with increasing clearness with the passing days. Six months of the application of the new law have demonstrated its efficiency and provided a background of experience which justified the recent dinner in commemoration of the passage of the act.

The dinner was a testimonial to Dr. Augustus S. Downing, for he was the outstanding leader in a movement among physicians and the people to secure the highest standards of honesty and

scientific knowledge in the practice of the healing art. The passage of the act involved a contest between those persons who would gamble on a quick recovery from pain, and those who are willing to achieve health and vigor by the industrious application of the principles of physiology and hygiene. Some will continue to speculate in health, but the untrained healers will no longer be permitted to hold forth alluring promises of cures when they know little about physiology and nothing about pathology.

DR GLENWORTH R BUTLER

Dr Glenworth R Butler of Brooklyn finished his life work on December 6, after long years of active usefulness as a leading writer, teacher, and practitioner of medicine. Dr Butler had a large measure of genial friendliness which made his associates feel that his own phenomenal knowl-

edge and diagnostic acumen was theirs also. To him scientific medicine was a spirit of healing service of which he himself was only the bearer and servant. His associates loved him for the generous modesty which beautified his lofty greatness.

A MINIMAL PROGRAM FOR COUNTY MEDICAL SOCIETIES

The leaders of every county medical society are seeking for an outline of activities which the society can carry out. The thousand and more county societies of the United States have developed their activities in almost every possible way. Some act along original lines, and some are followers of the order of lecture program a century old. Some are purely scientific, and others take on social and civic activities.

It would be illuminating to make a study of what the counties of other states are doing, and to compare their activities with those of New York State. The records are found to a great extent in the Journals of the State Societies, but the Michigan State Medical Society has adopted a minimal program which is suited to conditions in that state. The program has been a slow growth and evolution from small beginnings, and has been clearly stated by Dr F. C. Warnshuis, Secretary of the State Society and Speaker of the House of Delegates of the American Medical Association. He groups the activities in five sections.

The first section sets forth the standards of the scientific meetings and reads as follows:

Section 1 *Scientific*

(a) Ten meetings are to be held during the year. Local speakers are to appear before three meetings with definite planned discussions.

(b) A program of physical examinations shall be instituted in which all physician members shall agree to have a complete physical examination themselves, and each shall agree to secure at least five patients who will agree to have complete physical examinations.

Many county societies of New York State hold monthly meetings. Some hold only one or two, but there has been a growth of interest in the meetings which has been stimulated by the frequent visits of the President of the State Society and the Executive Officer during the past year. These visits have been of essential value not only for the encouragement of the presence of the state officers, but also for the opportunities which they have afforded the several societies to learn what the others are doing. The New York societies of counties containing cities of considerable size frequently supply local speakers for their programs, but the members of the local societies

often allow various conditions, including undue modesty, to demand speakers from outside their own circle of members.

Some societies of New York State have adopted the program that all their members shall undergo a physical examination, but Michigan seems to be ahead of New York in expecting that every member shall secure at least five patients who shall consent to be examined.

The second section refers to social activities and reads:

Section 2 *Social and Informal Activities*

Each society is to have at least three dinner meetings. The speakers for these meetings shall be public speakers, educators, financiers, but not medical men. At least one picnic shall be held. At least one social evening, in cooperation with members of closely related organizations, shall be arranged.

The extent of this requirement is not exactly clear. Three dinner meetings, one picnic, and one social evening, make five meetings in addition to the ten scientific meetings of the society, or fifteen meetings in all in the course of the year. Probably no society in New York approaches this standard.

Section three relates to scientific teams and is as follows:

Section 3 *Scientific Teams*

Each society shall have a group of two or three members who will prepare a program and give it on request before at least three other societies.

This standard assumes a degree of originality beyond that of the average county society of New York State. It is an excellent standard and worthy of adoption.

Section four relates to lectures given to lay organizations by local physicians and reads as follows:

Section 4 *Public Health Information and Education*

Each society shall plan to have at least one Public Health lecture group which shall give at least five lectures in cities and communities outside of their resident communities or cities. Adjoining counties are to be included. Each society shall cooperate and assist other organizations so that the following public lectures may be held (Cooperation shall be established with the Ex-

tension Department of the University of Michigan, and the Joint Committee on Public Health)
 1 lecture for each High School
 1 lecture for each Parent-Teacher Association
 1 lecture for each Luncheon Club
 1 lecture for each Woman's Club
 1 lecture for each Association of Commerce

While the physicians of New York generally dislike to "write compositions," still more do they shrink from public speaking, especially if they have to travel to another community. Still, the ideal is laudable and worthy of consideration.

Section five relates to the modern movement to treat the accounts of meetings as news and reads as follows:

Section 5 *Publicity*

Each meeting, scientific or public, shall be reported to the local newspapers in such form that at least one important point of value can be read by the reader.

The Secretary shall report each month to the State Medical Society the complete record of all activities and accomplishments.

This standard has frequently been advocated in

THE NEW YORK STATE JOURNAL OF MEDICINE, and some societies have adopted it. The newspapers are eager to get the items. The field is ready, and it only remains for the local societies to occupy it. There has been a healthy increase in the number of secretaries who report their meetings to the State Journal.

New York seems to excel in its program for bringing graduate education within reach of the members of county societies. The Committee on Public Health and Education has demonstrated that the members of County Societies generally are desirous of studying and keeping themselves abreast of the times.

New York also excels in the practice of civic medicine by county societies. An increasing number are taking the lead in the support of civic projects of a medical nature. It is doubtful that any other state can equal the record of the county societies of New York State in its campaign for anti-diphtheria immunizations.

A consideration of minimal standards of action has the great value of setting forth definite programs from which a choice may be made by any county society.

LOOKING BACKWARD

This Journal Twenty Years Ago

Twenty years ago the words "indigestion" and "dyspepsia" stood for what were supposed to be disease entities whose seat was the stomach. But already the surgeons and gastroenterologists had recognized a long list of pathological conditions which gave rise to the feelings on which a diagnosis of indigestion and dyspepsia was based. It was even suggested that indigestion and dyspepsia were symptoms, and by themselves were of comparatively little importance.

This Journal for December 1906 contains two articles which deal with indigestion. The first is on "The Surgical Treatment of Indigestion" by Dr. E. S. McSweeney, in which the author says, "Removal of the primary cause at a given point means relief for all. This eliminates the functional or idiopathic indigestion where the individual affected is told that he has indigestion, but no one knows where, or what, or why."

This expresses the modern view, that a diagnosis of indigestion or dyspepsia is almost as inadequate as that of catarrh.

The December 1906 issue of this Journal also contains an editorial on Dyspepsia which was evidently inspired by the article of Dr. McSweeney and which reads as follows:

"DYSPEPSIA.—There are many terms in medicine which have been used to designate a disease and which better knowledge has shown are at the most simply groups of symptoms de-

pending upon several different conditions or diseases. The development of medical knowledge upon a pathological basis is eliminating these terms from the catalog of disease entities. Dyspepsia is one of the terms belonging to this confused nomenclature, and in text-books which can not be called old we find it described and treated as a disease. However, it is destined to go the way of jaundice and rheumatism and linger in medicine as an old word applying to a large number of symptoms arising from many different conditions of disease.

"Recent authors have described it as, 'any disturbance in the digestive functions.' This definition is certainly broad enough to comprehend all that the word might imply. When we think of digestion as being made up of two processes, one a chemical process going on in the cardiac end of the stomach, and the other a mechanical process going on in the pyloric end, it seems very convenient to designate as dyspepsia the symptoms arising from disturbance of either of these processes. But the conditions which may give rise to such disturbances are so variant that to include their manifestations under a single head is dangerous to the interests of therapeutics. If the treatment of a disease varies from the administration of bicarbonate of soda to gastrectomy, it is probable that it is not a disease entity."

MEDICAL PROGRESS

Applications of Besredka Vaccines in Local Inflammations Including Chronic Nasal Sinus Affection—E Nikolaeva of the Metchnikoff Institute at Orenbourg, reports in the *Annales de l'Institut Pasteur*, October, 1926, twenty cases of the application of Besredka vaccines in various acute and chronic local inflammations—furunculosis, anthrax, mammitis, otitis, and keratitis. The cultures were made in bouillon, with or without glucose according to the nature of the microorganism, and were used on the 7th to the 10th day, at times much later. They were first heated to 60° C, then filtered through paper, and used purely as dressings. Apparently both stock and autovaccines were used indifferently—the former when there was no opportunity to obtain cultures. In lesions of the skin wound dressings could be applied, but in the external ear instillations, and in stomatitis gargles were substituted. In summing up, the author commends especially the results obtained in furuncle in any stage. In superficial mastitis results were satisfactory but not in deep cases where incision was found necessary. In stomatitis autovaccines gave good results, but in otitis (the external form is referred to) not so good because of mixed infection. In some of the cases treated the rapidity and specific quality of the cure bordered on the marvellous. The keratitis referred to seems to have been an accidental complication of trachoma which responded to the instillation of a culture made from streptococci found in the mucosa of the conjunctival sac. In furuncle, carbuncle, and whitlow the vaccine appeared to reinforce the natural defence, aborting very early cases, promoting early escape of pus, and favoring cicatrization in later stages.

In an article published in the *Journal of the American Medical Association*, May, 1925, Harold Hays reported eminently satisfactory results obtained by vaccines locally applied in the treatment of various nose, throat and ear conditions. He now reports in the *Laryngoscope*, November, 1926, xxvi 11, on a series of over 200 additional cases, chiefly concerning the value of vaccines applied locally in subacute and chronic sinus infections. It is very rarely in these conditions that one sinus alone is involved. The chief value of the vaccine, in the writer's opinion, is due to the fact that, instead of isolating and regrowing the predominating bacteria, which may or may not be at fault, use is made of all the bacteria obtained from the diseased part with any or all of the eliminative properties of these organisms, since the latter may have a very important part in the disease

process. The plan of treatment consists in a thorough examination, including trans-illumination and a roentgenological examination. If pus is present a culture should be taken on a sterile swab and immersed in sugar bouillon at once, since delay may mean an unsatisfactory vaccine. The nose is then thoroughly cleansed, using the suction apparatus, and three successive bottles of washings are kept for comparison. The vaccine is usually applied in eight treatments at intervals of three or four days, and in the interim the patient uses the vaccine twice a day in the form of a spray. Before applying the broth vaccine the mucous membranes are only slightly shrunk with cocaine and adrenalin, as too much shrinking interferes with the absorption of the vaccine. The broth vaccine is applied on long strips of cotton or one-half inch gauze, packed into the nares and allowed to remain for 20 minutes to a half an hour. The nose is then sprayed with an antiseptic oil. Usually at about the fourth week a decided improvement is noted. A case is cited in which, following the removal of a carcinoma of the antrum, sinus infection persisted and a fistula formed. After the application of the vaccine to the antrum the entire condition cleared up. The results in this case suggest the possibility that various bacteria may play a part in the spread of cancer, and the writer suggests that the vaccine may possibly have a specific effect in certain cases of malignant growth.

Spontaneous Disappearance of Cancer—Otto Strauss divides this subject into five, as follows: 1 Disappearance of a primary cancer or of a recurrent one. 2 Disappearance after a palliative procedure. 3 Disappearance after an incomplete operation. 4 Disappearance as the result of a febrile process. 5 Spontaneous disappearance of sarcoma. It is contrary to all logic for a malignant growth ever to heal spontaneously yet we must bear in mind many recorded cases. We must avoid all confusion of terms. Spontaneous disappearance can only mean that the growth vanishes utterly without trace. An arrest, a diminution of size, a sloughing out, these are not the same. The author cites many cases reported by contemporary observers which virtually may be called cases of spontaneous recovery. They may be spoken of as clinical cures perhaps, but are not completely documented. In some the observation period was brief, in others there were residues of the growth still present. There is however, a lack of autopsy control and from the

nature of things of microscopic control as well. The locality is of significance, for in cases of apparent cure of cancer of the stomach following gastroenterostomy and of cancer of the rectum after colostomy the evidence must at times be purely negative. After analysis of the type of these cases the author expresses his belief that in spontaneous disappearance we are dealing really with peculiarities of course and not with any curative process in which the body defences prevail over the malignancy. Strictly construed he finds no case which can justly be called of this type. To speak of an ideal defence in such cases is only to deceive ourselves. Of the 52 cases analyzed by the author not one is above criticism. At most there is only partial involution. By contrast there have been perfectly documented cases of spontaneous recovery of sarcoma, although the author cites only two, seen respectively by Muller of Rostock and F. König of Göttingen.—*Deutsche medizinische Wochenschrift*, October 22, 1926.

Periodic Variability of Some Forms of Arterial Hypertension—Louis H. Sigler says it is well known that posture, activity, digestive processes, and nervous excitement are determining factors in increasing or decreasing the blood pressure readings of a given individual at any given time, but little study has been made of the cases showing periodic variabilities bordering on the normal or even subnormal, only to return again to the original reading. He reports five cases in the *American Journal of the Medical Sciences* for October, 1926, cxvii, 4, in which such changes occurred without any recognizable cause. These variations lasted for periods of hours or days, and were apparently unassociated with any other physical or mental disturbances than those experienced by the individual during the hypertensive period. Pathological changes in the circulatory and renal structures, as shown by clinical manifestations, could not account for these variations. It would seem as though they were dependent mainly upon the vegetative nervous system, and may be analogous to the psyche in insanity cases with exacerbations and remissions, independent of the general constitutional state. This would mean that, for hypertension to occur, there need not necessarily be a diseased condition of any other system, but there must be some structural or functional abnormality in the vegetative nervous system making it susceptible to stimuli—toxic, infectious, neurogenic, or metabolic—that under ordinary circumstances are ineffective. No attempt has been made to determine a possible anatomical alteration in the vegetative nervous system in hypertension. The fact that these falls in blood pressure oc-

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A Consideration of Arteriosclerosis of the Cerebral Vessels and the Pathogenesis of Hypertension—Since the classical work of Gull and Sutton, fifty years ago, it has been supposed that there is an intimate relationship between arterial thickening and the anatomical changes which today are recognized as being associated with increased arterial tension. In the study of this relationship much painstaking work has resulted in many hypotheses, most of which have been found inadequate. Thinking it might be possible to explain the more or less chronic states of hypertension upon the basis of localization of vascular changes in the region of the vasomotor center, James Bordley III and B. M. Baker, Jr., (*Bulletin of the Johns Hopkins Hospital*, October, 1926, xxxix, 10) have studied twenty-four brain specimens in cases of generalized arteriosclerosis. These investigations have established a constant relation between structural changes in the arterioles supplying the medulla oblongata and persistent states of arterial hypertension, and suggest that such arterial changes constitute an anatomical basis for the explanation of sustained arterial hypertension. It is highly probable that these changes would tend to diminish the blood supply to the part concerned. With such a diminution, experimental evidence would make it seem a just conclusion that a compensatory elevation in blood pressure would be demanded. This suggests that if the elevation in blood pressure is compensatory in nature, one can do nothing more deleterious than to induce an artificial fall, a fact well recognized by clinicians. The changes which were found in the medulla oblongata were not strictly localized to this area, but seemed to constitute only a part of a process which may, and nearly always does, occur in other organs. The arteriosclerosis is frequently found to be more extreme in the kidneys than in the medulla oblongata. These investigations do not explain all varieties of hypertension. Transient elevations of blood pressure cannot be explained on the basis of what would appear to be permanent vascular lesions. The authors feel, however, that their investigation provides an anatomical explanation, supported by experimental fact, for persistent elevation of the blood pressure.

Nasal Sinusitis as a Cause of Toxemia—Sir William Willcox, writing in *The Practitioner*, September, 1926, cxvii, 3, expresses himself as greatly impressed with the importance of nasal sinusitis as a cause of toxemia and disease of other organs. As dental sepsis

is often latent and can be demonstrated only by roentgenological methods, so in nasal sinusitis the existence of a focus of infection is quite latent in a large number of cases and gives rise to no local symptoms. In cases of systemic disease, which may possibly be due to a local condition, careful search should always be made for any evidence of sinusitis, employing radiography and transillumination. Adequate treatment of nasal sinusitis is imperative, since if it is left untreated the focus of infection will speedily give rise to systemic disease. The management of every case of nasal sinusitis should be based upon the view that one is dealing with a case of toxemia, usually streptococcal, where the focus of infection is in the nasal sinuses. Each case is, therefore, a problem in immunity, and should be treated from this standpoint. In cases in which the toxemia is acute, it is best to delay operation until the acute toxemic symptoms have subsided. In chronic cases not too much in the way of treatment should be done at one time, so that opportunity may be given for recovery from the resulting autoinfection. Where foci of infection exist in other parts, as the tonsils or teeth, an interval of time after the sinus operation should be allowed before proceeding with further surgical measures.

Prognosis and Treatment of Epidemic Encephalitis—Professor Heimicke of Chemnitz sums up an article on this subject, the result of his experience in the new station for encephalitis victims at Chemnitz-Altendorf, which is an annex of the Educational Institute for the Blind and Feeble-Minded. The acute form of the disease, he says, yields to but one remedy—the injection of convalescent serum. This will not only save life but prevent the disastrous chronic stage and sequelæ. The serum should also be tried at later periods after the chronic stage has set in. The author particularizes two syndromes which may follow the outbreak. One he terms the pseudo-neurasthenic stage in which the symptoms of neurasthenia are mimicked closely, as headache, prostration, etc. The other is the pseudo-psychopathic, by which term the author signifies the so-called character and personality changes in both children and adolescents. It is in these two syndromes that the serum may be of benefit and this is also true of symptoms of psychosis. Generally speaking unilateral cases have a better prognosis than bilateral. It is unfortunate, the writer thinks, that the great value of convalescent serum is not well understood, and the serum itself may be difficult to obtain. In its absence the best remedy is sodium salicylate. Others which may be tested are collargol and trypaflavin, although

the author shows no enthusiasm for either—*Muenchener medizinische Wochenschrift*, October 1, 1926.

Physical Build and Type of Psychosis—This subject, which was given a great impetus by Kretschmer's book, continues to claim much space in German psychiatric literature. In the *Archiv f. Psychiatrie* for October 8, 1926 (vol. LXXVIII, No. 3) we find two papers, of which the first, by Georgi and two collaborators, appears to bear out the truth of Kretschmer's claim remarkably, at least for Silesia. The number of insane examined anthropometrically was 104 and two groups were made, of which one was the pyknic or compact and well knit, while the other contained the athletic, asthenic (the authors prefer the term leptosome), dysplastic, and mixtures of the three. Practically none of the manic-depressives was found in the second physical type and few schizophrenics in the first. However this does not exhaust the material, for there were numerous individuals in which the two opposed types were blended, all presenting pyknic traits in some degree. If we call these pyknoids then the latter were found in both manic-depressives and schizophrenics and to about the same extent. The second paper by Professor Weichbrodt was frankly skeptical and he placed the labors of Kretschmer in the same category with the past attempts of Gall, Spurzheim, Lavator, Lombroso, and all who attempt to associate mental and physical traits, including the scientific graphologists. Even if the innovators are partly right, he says, they still do no good and do not represent progress. He concludes with Goethe's advice to scientific men to avoid alike that which is unknowable and that which is not worth the effort.

Idiosyncrasy—The variety and complexity of the problem of idiosyncrasy appear to be yielding slowly to experimentation and W. Jadassohn relates a great number of tests made by himself, beginning with pollen idiosyncrasy and hay fever. A series of 15 hay-fever patients who had never presented urticaria in any form, but who invariably suffered from hay fever during the season, reacted by urticaria to the intradermic test made with the specific pollen. Normal controls subjected to the same test with the antigen failed to react with but three exceptions in which urticaria likewise developed. These three subjects were never troubled with hay fever during the season. Some of the hay-fever subjects when subjected to the action of a local irritant under an impermeable membrane reacted with an eczematous outbreak after 24 hours contact, but double or multiple idiosyncrasy is rare,

nature of things of microscopic control as well. The locality is of significance, for in cases of apparent cure of cancer of the stomach following gastroenterostomy and of cancer of the rectum after colostomy the evidence must at times be purely negative. After analysis of the type of these cases the author expresses his belief that in spontaneous disappearance we are dealing really with peculiarities of course and not with any curative process in which the body defences prevail over the malignancy. Strictly construed he finds no case which can justly be called of this type. To speak of an ideal defence in such cases is only to deceive ourselves. Of the 52 cases analyzed by the author not one is above criticism. At most there is only partial involution. By contrast there have been perfectly documented cases of spontaneous recovery of sarcoma, although the author cites only two, seen respectively by Muller of Rostock and F. König of Göttingen.—*Deutsche medizinische Wochenschrift*, October 22, 1926.

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LEGAL

By LLOYD PAUL STRYKER, Esq.
Counsel, Medical Society of the State of New York

CRITICISM OF PHYSICIANS BY PHYSICIANS

There is no profession requiring a higher degree of care, skill or learning or necessitating adherence to a higher standard of honor than that of the practice of medicine. There is no profession that renders a higher service to mankind, there is none that performs more gratuitous service, there is none more indispensable to the human race in peace and in war.

Yet, because of the ignorance of the laity and their inability to appreciate and thoroughly grasp the grave problems confronted by every physician in his contest with disease and death, there is no profession which comes in more frequently for criticism. Nothing could be more unfortunate or deplorable than criticism of the profession, or a given member of it, which has its source in some thoughtless or unfounded remark made by one physician concerning the conduct of another.

"Into whatever houses I enter," wrote Hippocrates in his famous oath, "I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption," "The principles of fair conduct embodied in this oath four hundred years before the birth of Christ are still recognized as controlling principles for the medical profession. This oath at the present time or a modification of it, is administered to graduates of the majority of the medical colleges of this State.

Amplifying the doctrines of this oath, the *Principles of Professional Conduct* of the Medical Society of the State of New York define in considerable detail the duties of physicians to the profession to the patient and to the public. The various county societies are charged with the duty of carrying out these principles to the best of their ability.

"Everyone on entering the medical profession and thereby becoming entitled to full professional fellowship," declares the first section of these *Principles of Conduct*, "incurs an obligation to guard and uphold its high standard of honor, to conform to the principles of professional conduct and to comport himself as a gentleman."

The third section of these *Principles* declares that "The medical profession exacts from its members the highest type of character and morals, and to attain such a standard is a duty every physician owes alike to the profession and to the public."

Section 11 provides that "In consultations no insincerity, rivalry or envy should be indulged. All due respect should be observed toward the physician in charge of the case and *no statement or remark* should be made which would unjustly impair the confidence reposed in him." And the following section (12) reads "All statements of the case to the patient or his representative should take place in the presence of all the physicians consulting, except as otherwise agreed, no opinions should be delivered which are not the result of concurrence."

Section 24 declares "Diversity of opinion or opposition of interests may sometimes occasion controversy and even contention. Whenever such instances occur and cannot be adjusted, they should be referred for arbitration, preferably to the Board of Censors of the County Society of which such physicians are members."

The first article of the *Constitution* of the Medical Society of the State of New York declares that "The purposes of the Society shall be to federate and bring into one compact organization the medical profession of the State of New York, to promote friendly intercourse among physicians, to guard and foster the material interests of its members, and to protect them against imposition."

These principles, of course, do not mean that it is the duty of a physician in any case to fail in doing all that may be necessary and proper to bring about a good result for his patient, nor do they mean that he should suppress facts as to the commission of a crime. Neither do they mean that the failure of his predecessor in a case to follow the proper practice imposes upon him the duty of continuing the same fault. These principles, however, do mean that unnecessary, and especially unjust, criticism of a brother physician should at all times be avoided.

No doctor possesses perfect skill or perfect knowledge. Every doctor, until the contrary is shown, is entitled to the presumption that he has used his best skill and his best knowledge in order to achieve a good result. In so complicated a subject as medicine it is inevitable that there should be differences of opinion. The judgment of two or more physicians may differ, just as may be the case with other citizens or members of other professions. Honest

usually one who reacts by urticaria fails to develop eczema and vice versa. A patient with celery idiosyncrasy reacted by urticaria but could not be made to develop eczema. In making tests for egg albumin idiosyncrasy it has been shown that the antigen is not the albumin itself for this can be dialyzed out. The author made numerous tests for the presence of antibodies by the method of Prausnitz and Kustner. Symmetrical areas of skin as far apart as possible are treated respectively with some antigen and normal serum. In 24 hours a second test is made, and if urticaria develops in the sensitized area it indicates that a specific antibody has formed in that area. Positive reactions were obtained in all of the members of the group—hay fever, asthma, urticarial dermatoses, and toxicodermatoses—*Klinische Wochenschrift*, Oct 15, 1926.

Traumatic Neurosis—Heidrick of Professor H. Küttner's surgical clinic takes up especially the subject of a post-commotional nervous syndrome following blunt violence to the head, and reviews 14 cases with emphasis on the association of organic lesions. It is known that the neurosis may be purely functional and akin to hysteria and also that with refinements of microscopic technique minute lesions are being found with increasing frequency. In medicolegal practice there is of course no distinction made between functional and structural neuroses. Some of the lesions are fibrous arachnitis, minute meningeal and cerebral hemorrhages, and scars in the glia. Immediately following the violence there is invariably in the author's experience *commotio cerebri*, and as a rule there are at least six months of latency before the appearance of the nervous syndrome. When the symptoms appear they are typical—headache, disinclination for work, vertigo, loss of memory. Objectively the findings are both few and vague even when present. When these patients present themselves in the clinic the pressure of the cerebrospinal fluid is at once taken and is usually found markedly increased. The fluid itself is normal. Encephalograms may show anomalies of the ventricles either primary or after inflation of air. There is a third diagnostic resource, timing the passage of injected phenolphthalein from the spinal canal to the urine. It is believed in a general way that if any of these three tests is positive, and especially if two or more coexist, organic disease is likely to be present, but the author has his doubts as to the wisdom of inflating with air or of injecting test fluids in the canal for it could in theory be possible to add trauma to trauma—*Bruns's Beiträge z klin Chirurgie*, 1926, vol cxxxvii, No 4.

The Disease Picture of Yellow Fever—Professor W. H. Hoffmann of the University of Havana is the legatee of all the documents relative to yellow fever accumulated by the late Dr. Juan Guitéras, who for a quarter century was a student of this affection. These include 107 case histories collected by the deceased in his own practice. The author carefully analyzes these and his summary is as follows: Yellow fever is a form of sepsis of a hemorrhagic type due to the activity of the *Leptospira icteroides*. The toxin formed by this organism attacks especially the parenchymatous organs (liver, kidneys), the myocardium, and blood vessels, producing a severe form of acute degeneration which often leads rapidly to death. The hemorrhages and vomiting of blood are due to degeneration of the vessels. The hemolysis and absorption of hemoglobin are responsible for the jaundice. The presence of the *Leptospira* in the blood causes the formation of powerful antibodies which makes recovery possible in a certain number of cases. Children may have the disease in an extremely mild form and then the diagnosis may be so difficult that in certain cases only the presence of the specific microorganism can clinch it—*Deutsche medizinische Wochenschrift*, Oct 8, 1926.

Cervical Gestation—P. Schneider of Professor Halban's Vienna gynecological clinic has placed on record for the first time a case of undoubted gestation in the cervical canal, a condition said in reference works to be unknown to exist. The ovum was but two months old. The patient, admitted for metrorrhagia, was thought to have an ordinary abortion but after curettage bleeding continued and the ovum covered with chorionic villi was found projecting at the partly dilated os. Further investigation showed that the blood was pouring from a cavity in the left side of the cervix the size of an English walnut, this cavity representing the place of nesting of the ovum and having a wall of paper-like thinness in one place. It was necessary to tampon this cavity. Examination of a portion of the cervix left no possible doubt that there had been an original implantation of the ovum in the cervical canal. Although no other case could be found on record there is an allied condition known as *cervix placenta*, which is also extremely rare. In 1922 Zangemeister and Schilling were able to find but 30 recorded cases, although two years later E. A. Müller who went over the ground with extreme care was able to raise the total to 55, while three others have been reported in the past two years—*Archiv f Gynakologie*, Sept 2, 1926, (vol cxxix, No 2).

found that the median and ulnar nerves had been injured, which caused the contraction and atrophy of the muscles and tendons of the fingers, resulting in a "claw hand" with a permanent loss of about ninety-five per cent of function. The examining physician concluded his report as follows: "There is no doubt in my mind that the patient suffered from a virulent type of infection, as can be noted from the rapidity with which it spread. Furthermore it is apparent that the attending physician was very active in attempting to limit its spread. He was apparently awake to the gravity of the situation by having her admitted to a hospital and administering an anaesthesia each time so that his care would be

thorough. Not infrequently these types of cases require amputation of the extremity."

This action came on the calendar for trial. Plaintiff not being ready to proceed, the complaint was dismissed. The plaintiff then moved to restore the case to the calendar for trial, which motion was granted. When the case again came on the calendar for trial, the plaintiff again was not ready to proceed with the trial of the action and a motion was made on behalf of the defendant to dismiss the complaint for failure of the plaintiff to prosecute it, which motion was granted, finally terminating this action in favor of the defendant after it had been pending for a period of about five years.

MASTOIDITIS FOLLOWING INFLUENZA—COLLECTION OF BILL— COUNTERCLAIM

A physician had attended a patient more or less continuously for a period of about five months. The patient paid part of her bill and refused to pay the balance. After numerous demands the physician caused a suit to be instituted for the collection of his bill. In answer to this suit a counterclaim of alleged malpractice was interposed charging the defendant with negligence and carelessness in his attention, treatment and care of her during her illness. The patient claimed that the injuries she sustained by reason of the physician's negligent treatment were an aggravated catarrhal condition of the right middle ear and defective hearing in said ear, the formation of an abscess in the right ear and a diseased condition of the mastoid and nasal sections and that it was necessary to have an operation performed for the mastoid condition. She sought to recover from the physician for the expenses she claimed to have been put to in the mastoid operation and in the treatment by other physicians and hospital expenses subsequent to her treatment by the plaintiff physician, the amount of which exceeded the balance due the plaintiff for his services.

The plaintiff physician had been called on January 28th to attend the patient, an unmarried woman about forty-seven years of age. On examination he found her suffering from influenza and bronchitis and ordered her transferred to a hospital, where he saw her the following morning. He then properly prescribed for her condition and saw her twice daily until February 27th. On this day she complained of pain in the right

ear. Upon examination he found the tympanum was congested, which condition he watched for two days, when he found the tympanum bulging. This physician, being an internal medicine man, called a nose and throat specialist to attend the ear condition. On February 9th the surgeon, without anaesthesia, incised the tympanum and ordered douching of the ear with hot salines and the spraying of the nose with adrenaline-chloride. This treatment was followed at frequent intervals until February 25th, at which time the ear discharge had subsided. She was again seen in consultation by the ear surgeon, who ordered X-ray. The X-ray disclosed empyema of the mastoid. A smear was then taken of the discharge from the ear. The hospital laboratory reported the presence of diplococcus and streptococcus. On February 28th the ear surgeon, under a general anaesthesia, performed a mastoidectomy. A smear of the pus taken at this time showed the presence of hemolytic streptococcus. Until May 16th the mastoid wound was taken care of and dressed by the plaintiff physician and by the surgeon. On this latter date the wound had healed and needed no further care, at which time she was discharged from the hospital and no further treatment was rendered her by this physician.

When the matter was about to be reached for trial, the same was compromised, the physician accepting a lesser sum in satisfaction of his claim and the counterclaim of alleged malpractice being withdrawn.

errors of judgment may be made by the most learned and the most competent, but such things should not be paraded by other physicians

It would be impossible to give an accurate estimate of the number of malpractice cases which have arisen by reason of some criticism or comment which one doctor made about the conduct of another. We have known of cases in which such comments, oftentimes wholly unjust, have resulted in the creation of an opinion in the mind of the patient or his family that the doctor criticized was at fault.

Physicians who recognize (as all of them

must) that it is their primary duty "to conform to the principles of professional conduct" and to comport themselves as gentlemen—must be aware of their obligation not to indulge in unjust or unfounded criticism. Most of the criticism leveled by one doctor against another arises no doubt from thoughtlessness rather than from malice, and yet the unfortunate results of such criticism may be that a thoroughly competent physician who has used his best judgment and his highest skill, care and learning, may be subjected to the mental suffering and the serious financial hazard of an action for malpractice.

LACERATION OF THUMB FOLLOWED BY INFECTION RESULTING IN LOSS OF FUNCTION OF HAND

In this case the complaint charged a physician with having represented himself to be a competent physician and surgeon and that on the 23rd of December he was employed to heal a cut the patient had sustained to her right hand and properly to care for the same, that through his negligence and carelessness and his failure to use the proper care, medicines and appliances, the wound was not healed but became infected and the patient was caused to suffer great pain and anguish, her hand had become disfigured, diseased and stiffened, the fingers of her hand had become numb, she had lost the sense of feeling and the use of her right hand and arm, that her general health had been impaired and weakened and she was unable to perform her household duties.

On December 21st the plaintiff, while engaged in her household duties, had cut the palm and inner surface of her right hand with a kitchen knife, which she had treated with home remedies. On December 23rd the defendant physician was first called to attend the plaintiff. At that time he found the thumb of the right hand badly infected and swollen. He prescribed wet dressings. On the following day he incised the inside and outside of the thumb, inserting a gauze drain and continued the wet dressings. Thereafter from day to day he attended the plaintiff and properly treated her injury. The infection, however, did not subside but continued to spread over the entire hand and up the arm. On December 29th he had her admitted to a hospital and called a surgeon in consultation and on that day, under an anaesthesia, the incision of the thumb was extended on to the hand forming a semi-circle. On the following day longitudinal incisions were made on the palm and counter-incisions made on the back of the hand and the forearm was also incised as the infection had extended up the arm. The incisions

were kept open with gauze drains and wet dressings were applied. The patient continued to remain at the hospital until January 9th, during which time she was seen daily by the defendant and her injury given the necessary and proper care. On this day she was discharged from the hospital. She continued under the treatment of the defendant at intervals until the end of March, being given massage and other treatment to restore the function of the hand, which had become impaired by reason of the virulency of the infection.

On a physical examination made in the following year, the hand was found to be partly closed and partly open, the fingers stiff except for a small amount of motion in the thumb and little finger, the fingers were purple in appearance and felt cold and looked shriveled. There was a horse-shoe shaped scar on the palmar surface, a linear scar on the dorsal surface and a scar on the forearm. The motion of the wrist was diminished to about one-half of the normal and radial flexion was entirely gone. The function of the thumb was impaired so that the distal phalangeal joint was stiff and partly flexed. The metacarpo-phalangeal joint allowed flexion so that the tip of the thumb could be adducted to the base of the middle finger, abduction and extension were markedly diminished. There was very little holding power by adduction of the thumb. The index finger had no power of function, the same being straight and stiff. There was no function in the middle and ring fingers, they being straight and stiff. There was some movement present in the little finger but functionally of little use. The patient could not pick up anything, but after pushing an object to the end of a table or chair, would grasp it in the web between the thumb and the index finger. Nothing flat could be raised from the floor. There was also a diminution of sensation. The examining physician

found that the median and ulnar nerves had been injured, which caused the contraction and atrophy of the muscles and tendons of the fingers, resulting in a "claw hand" with a permanent loss of about ninety-five per cent of function. The examining physician concluded his report as follows: "There is no doubt in my mind that the patient suffered from a virulent type of infection, as can be noted from the rapidity with which it spread. Furthermore it is apparent that the attending physician was very active in attempting to limit its spread. He was apparently awake to the gravity of the situation by having her admitted to a hospital and administering an anaesthesia each time so that his care would be

thorough. Not infrequently these types of cases require amputation of the extremity."

This action came on the calendar for trial. Plaintiff not being ready to proceed, the complaint was dismissed. The plaintiff then moved to restore the case to the calendar for trial, which motion was granted. When the case again came on the calendar for trial, the plaintiff again was not ready to proceed with the trial of the action and a motion was made on behalf of the defendant to dismiss the complaint for failure of the plaintiff to prosecute it, which motion was granted, finally terminating this action in favor of the defendant after it had been pending for a period of about five years.

MASTOIDITIS FOLLOWING INFLUENZA—COLLECTION OF BILL— COUNTERCLAIM

A physician had attended a patient more or less continuously for a period of about five months. The patient paid part of her bill and refused to pay the balance. After numerous demands the physician caused a suit to be instituted for the collection of his bill. In answer to this suit a counterclaim of alleged malpractice was interposed charging the defendant with negligence and carelessness in his attention, treatment and care of her during her illness. The patient claimed that the injuries she sustained by reason of the physician's negligent treatment were an aggravated catarrhal condition of the right middle ear and defective hearing in said ear, the formation of an abscess in the right ear and a diseased condition of the mastoid and nasal sections and that it was necessary to have an operation performed for the mastoid condition. She sought to recover from the physician for the expenses she claimed to have been put to in the mastoid operation and in the treatment by other physicians and hospital expenses subsequent to her treatment by the plaintiff physician, the amount of which exceeded the balance due the plaintiff for his services.

The plaintiff physician had been called on January 28th to attend the patient, an unmarried woman about forty-seven years of age. On examination he found her suffering from influenza and bronchitis and ordered her transferred to a hospital, where he saw her the following morning. He then properly prescribed for her condition and saw her twice daily until February 27th. On this day she complained of pain in the right

ear. Upon examination he found the tympanum was congested, which condition he watched for two days, when he found the tympanum bulging. This physician, being an internal medicine man, called a nose and throat specialist to attend the ear condition. On February 9th the surgeon, without anaesthesia, incised the tympanum and ordered douching of the ear with hot salines and the spraying of the nose with adrenaline-chloride. This treatment was followed at frequent intervals until February 25th, at which time the ear discharge had subsided. She was again seen in consultation by the ear surgeon, who ordered X-ray. The X-ray disclosed empyema of the mastoid. A smear was then taken of the discharge from the ear. The hospital laboratory reported the presence of diplococcus and streptococcus. On February 28th the ear surgeon, under a general anaesthesia, performed a mastoidectomy. A smear of the pus taken at this time showed the presence of hemolytic streptococcus. Until May 16th the mastoid wound was taken care of and dressed by the plaintiff physician and by the surgeon. On this latter date the wound had healed and needed no further care, at which time she was discharged from the hospital and no further treatment was rendered her by this physician.

When the matter was about to be reached for trial, the same was compromised, the physician accepting a lesser sum in satisfaction of his claim and the counterclaim of alleged malpractice being withdrawn.



NEWS NOTES



DINNER TO DR AUGUSTUS S DOWNING

The dinner to Dr Augustus S Downing that was announced in the last two issues of the Journal was held on the evening of December 9, 1926, in the Hotel Commodore. The arrangements were in the hands of a Medical Committee of which Dr Orrin S Wightman was Chairman, Dr S Dana Hubbard, Secretary, and Dr James Pedersen, Treasurer, but the participants included representatives of the practice of osteopathy, dentistry, pharmacy, nursing, optometry, veterinary, and podiatry, all of which have been assigned by law to Dr Downing's Division for supervision and regulation. The banquet room was filled to its capacity, 410 being present.

Dr Livingston Farrand, President of Cornell University, presided as toastmaster, and in his opening address he called attention to the special object of the meeting, which was to recognize the progressive work of Dr Downing in gradually raising the standards of professional education over a period of a quarter of a century. Dr Downing has held the position of Director of Professional Education in the New York State Department of Education since the year 1908, and in his position he has had charge of the execution of the laws relating to the professions allied to medicine, including pharmacy, veterinary, dentistry, nursing, optometry, and podiatry, and also certified accountancy, surveying and other professions that require expert knowledge and training. The crowning work of Dr Downing was the passage of the Medical Practice Act last spring, and this has been the immediate occasion for the present memorial dinner. While physicians have taken the lead in the arrangements, members of all the other professions have been included. Moreover the dinner is not merely in celebration of the passage of the medical practice act, but it is in recognition of a series of accomplishments of which the medical practice act was the last.

Dr O S Wightman, chairman of the Committee on Arrangements, read a list of those from whom congratulatory letters and telegrams had been received, including Governor Alfred E Smith, Dr Nicholas Murray Butler, Dr Olin West, and Senator R S Copeland. When Dr Downing saw the list he said "I do not see why they did it!" Dr Wightman commented that this remark was the best possible evidence of the greatness of Dr Downing.

Dr Wendell Phillips, President of the American Medical Association, spoke on the subject "The Application of the Modern Knowledge of Medicine." He called attention to the increasing

demand by industrial plants that physicians should examine their employees, and detect incipient physical defects, for the number of days lost by illness is seven times as great as those by accident.

Dr Phillips referred to the very great value of the old time preceptor who taught his pupils the art of practicing medicine in such a way that the patients were satisfied. They treated the patient rather than the disease.

The suggestion has been made that two types of doctors be recognized, one highly trained scientifically, and the other less highly trained who should practice in rural districts. Dr Phillips said that this was unthinkable. A doctor who was qualified to practice in the city was none too good for the rural dwellers.

Dr Phillips said that the modern standard of the practice of medicine required physicians to make periodic examinations of the children whom they bring into the world, to keep records of their progress and to urge the mothers to bring their children for examinations at regular intervals. It is entirely ethical that a physician should ask a mother to return with the child at a specified time, and if she does not come, to call her on the telephone and urge her to come. Physicians are not practicing up-to-date medicine unless they are teaching preventive medicine to their patients and families. Medical students should be taught how to instruct their patients in medical subjects. In closing, Dr Phillips condemned the attitude of some of the doctors who say to an applicant for a physical examination "I have known you all your life and you don't need an examination." The physician owes it to his confiding patients that he give them the benefits of a skillful examination. To do less is to neglect his best friends.

Dr Farrand continued the line of thought of Dr Phillips by saying "One of the greatest things a doctor must do is to accept leadership in public health. Doctors are not meeting that obligation, but there is a marked improvement. But doctors will not feel this obligation until the medical schools teach it to their students."

Mr George W Whiteside, former Counsel for the Medical Society of the State of New York, spoke on the provision of the Medical Practice Act by which the medical profession has become self-governing through the Grievance Committee.

Dr Elmer E Brown, Chancellor of the New York University, spoke on the subject "The Application of the Knowledge of Medicine" and said that New York University was a better institu-

tion because of the constructive criticisms of Dr Downing. He answered the charge that Dr Downing was a bureaucrat by showing that a bureaucracy was necessary in order to stabilize and perfect democracy. When the people adopt a progressive idea, the law that they enact places its execution in the hands of a department or bureau whose members must work out the details of entirely new methods of putting the law into effect, and the bureau not only inherits all the odium and opposition that existed during the campaign for the enactment of the law, but it also creates new opposition by excluding methods which the more radical group of proponents seek to have adopted.

Dr Brown considered that legislation is slowly improving in quality because legislators are showing an increasing willingness to listen to such bureaucrats as Dr Downing who knows his subject thoroughly, and is unwavering in his support of high standards. Dr Downing has always stood for high ideals and a faith which was the "Substance of things hoped for and the evidence of things not seen."

Dr Charles B. Alexander, senior member of the Regents Committee on Higher Education, said that the Board of Regents had adjourned its meeting for a week in order to attend this dinner. He presented Dr Downing with an engrossed set of resolutions expressing the regard of the meeting for the doctor on the completion of his fifty-two years of service in the cause of education.

Dr Downing talked in a personal way of his experiences and the fine cooperation he had always received from the leaders in all the professions with which he dealt. Referring to several allusions to his acumen as a politician, he said that at the outset of his career a much older friend had given him the advice to admit nothing, deny nothing, and explain nothing, and that he had tried to follow that advice.

When Dr Downing was made Director of Professional Education in 1908, he and the Regents had laid out a program for higher standards, of which the first fruits was the nursing law of 1912, and the last and greatest the Medical Practice Act of last spring.

Dr Downing referred feelingly to the opposition which he continually met in promoting the higher ideals of professional education, but he generously gave the credit of success to the associates who had worked with him. Those who have known Dr Downing personally, appreciate this generosity of his nature and his strict adherence to the standard that every progressive act shall be for the benefit of the people.

In closing Dr Downing said that the love and affection of his co-laborers had given him the best satisfaction of his life. He quoted Cicero as saying that to the elderly man two things were of special worth, first, virtue which included the courage of one's convictions, and second, friendship. "The meeting tonight," he said, "demonstrates that you are hearty supporters of my convictions and are my friends."

TRI-STATE CONFERENCE

A meeting of the Tri-State conference that was approved by the House of Delegates of the Medical Society of the State of New York, was held on December 4, in the office of the Medical Society of New Jersey, 22 Gramercy Court, Atlantic City, with Dr J. S. Greene, President of the New Jersey Society, presiding. The Conference is composed of the following officers from each state, the President, the President-elect, the Secretary, the Executive officer, the Chairman of the Board of Trustees and the Editor of the State Journal. Those present from the Medical Society of the State of New York were Dr George M. Fisher, President, Dr J. S. Lawrence, Executive Officer, Dr Frank Overton, Executive Editor, and Dr N. B. Van Etten, Chairman of the Committee on Nursing of the Medical Society of the State of New York and also of the American Medical Association.

From the New Jersey Medical Society there were present Dr James S. Greene, President, Dr Walt Conaway, First Vice-President, Dr H. O. Reik, Secretary and Editor.

From Pennsylvania there were Dr H. W.

Albertson, President, Dr C. N. Morgan, President-elect, Dr Frank Hammond, Editor, Dr Campbell, Epidemiologist, State Department of Health, and Mr C. S. Pitcher, Superintendent of the Presbyterian Hospital, Philadelphia.

Nursing was the first subject to be discussed, and was presented by Dr N. B. Van Etten of New York. Dr Van Etten, representing both New York State and the American Medical Association, brought a mass of correspondence and articles on nursing, on which he made running comments. While his committees had not formulated their conclusions or made definite recommendations, yet they had found certain general conditions throughout the land, the committees had found a great demand for what is called basic or fundamental nursing, in distinction from the more highly trained nurse in special fields, such as those of supervising, operating room technician, public health nurse, and those who follow specialties such as psychiatric nursing, and the care of eye cases. Especially is there a call for the woman who will give bedside care during a common disease, and will do for the patient those

things which he would do for himself if he were well, and in addition can carry out the common procedures which are ordered by the doctor. This kind of nurse is to be considered from the standpoint of the patient rather than that of the doctor, for it is not so much technical care that she is called upon to give, but rather the care that is asked for by the patient.

Dr Van Etten discussed some of the reasons for the shortage of nurses, one of which was the tendency of sick people in hospitals to demand special nurses as luxuries rather than necessities. Special nurses are glad to supply the demand, especially since the service is comparatively easy, the pay good and the conditions of service attractive owing to the company of other nurses. To meet the demands for the special nurses, the group system has been proposed, in which one nurse cares for two or more cases in adjoining rooms, but this plan is not popular among patients, although the doctors favor it.

It seemed to be the opinion of doctors that the shortage of nurses is not nearly so acute as it was a year or two ago.

Dr Van Etten also discussed what the nurses say "in defense of their attitude." The nurses enumerate the following points to be considered: The opportunities for employment in other fields open to women.

The meager financial reward for hard service.
Lack of incitement to action, since few high positions are open to nurses.

The comparatively poor pay for private nursing when lack of continuity of employment is considered.

Increase of nurses' pay is not in proportion to the increase in the cost of living.

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Dr Van Etten closed with the suggestion that the conference express an opinion regarding the advisability of training a special group of nurses with a two-year course in the basic principles of bedside nursing. On the completion of the basic course, a nurse could take other courses which would fit her for a position as a supervisor, or in public health, or a nurse in a specialty, such as psychiatry, or eye, or genito-urinary work.

Dr Van Etten's suggestion received the general approval of the conferees, and it was their opinion that the plan for training the basic nurse should be developed in detail so that it may be presented to the training schools.

Mr C S Pitcher spoke by invitation from the standpoint of the hospital superintendent. He said that the profession of nursing had developed during the days of the development of modern medicine, and that while Louis Pasteur was developing a new technique for doctors, Florence Nightingale was developing the nurses who en-

abled the doctors to carry out their new technical standards.

Mr Pitcher described some of the experiments in the Presbyterian Hospital of Philadelphia, to carry out the group system of nursing and the plan of sending nurses to do hourly duty. While the experiments have been fairly successful from the hospital's point of view, yet they do not begin to solve the problems of private nursing.

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Dr H W Albertson spoke of some of the difficulties arising in connection with nursing in Pennsylvania, among them being the action of the State School authorities in sending nurses to the City of York to examine school children, and that of industrial plants in employing nurses to give treatment to injured workmen in excess of that required in first aid. He said that doctors had created the nurse, and that now the nurse had outgrown the doctor and was usurping his place. He agreed that the basic nurse was needed.

Dr George M Fisher outlined the investigations into the nursing problem conducted by the Medical Society of the State of New York.

In closing the discussion, Dr Van Etten proposed the following definition of the basic nurse.

The basic nurse is one who has graduated from a hospital training school after a two-year course in the theory, art, and practice of giving bedside nursing care to those incapacitated with ordinary surgical, medical, obstetrical, or pediatric conditions.

This definition was unanimously approved.

The control of rabies was presented by Dr H O Reik, Secretary of the Medical Society of New Jersey and Editor of its *Journal*, who read a brief paper written by Dr H S Costill, State

Director of Public Health for New Jersey While there is a current impression that human rabies is almost unknown, yet it causes from five to ten deaths annually in each of the three states, New Jersey, Pennsylvania, and New York Four preventive measures are used to control rabies in dogs

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Of his scientific attainments and his high standing in his chosen specialty it is unnecessary to speak, the well-merited reputation that he had gained is known to all

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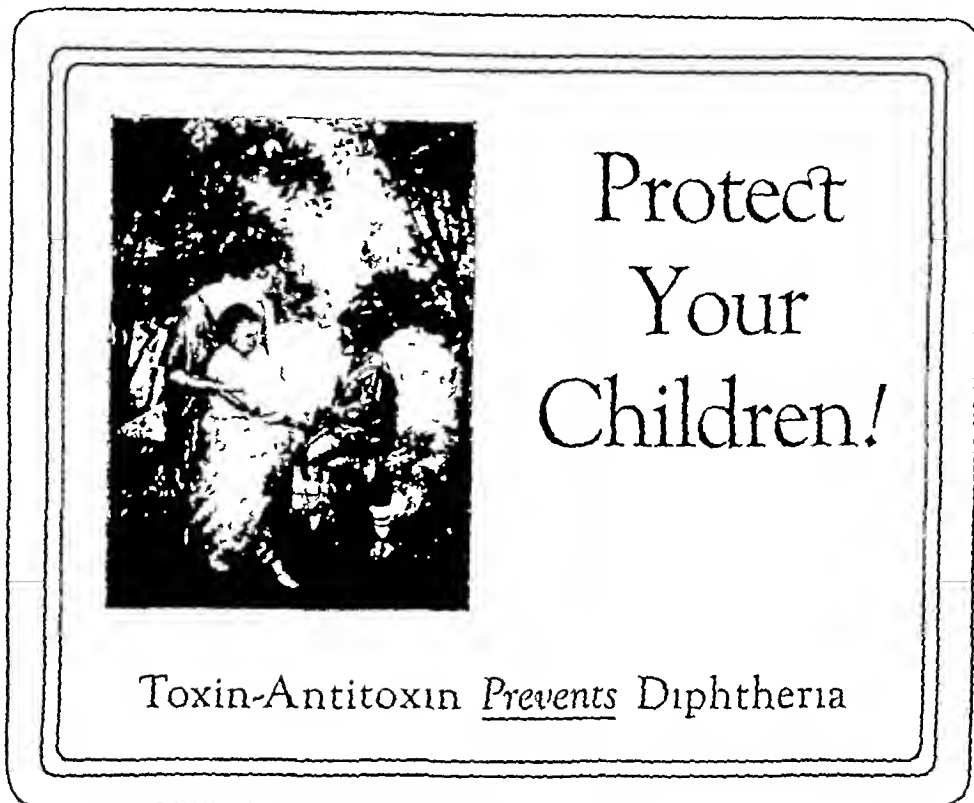
J E JENNINGS,
D S DOUGHERTY,
Committee

DIPHTHERIA PREVENTION PLACARD

A placard to be hung in doctors' offices has been designed by the State Committee to eradicate diphtheria. It measures nine by eleven inches, and is available to every physician in the state

against diphtheria by immunization with toxin-antitoxin

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THE ANNUAL MESSAGE OF PRESIDENT COOLIDGE

President Coolidge's message of December 8th accompanying his proposed budget of expenses to Congress contains two paragraphs of great interest to physicians and layworkers. Regarding the Sheppard-Towner funds he writes:

"No estimate is submitted for carrying on the work under the maternity and infancy act, approved November 23, 1921, inasmuch as the authorization of appropriations for this purpose was fulfilled with the appropriation for 1927. A bill is now pending before the Congress extending the provisions of that act to the fiscal years 1928 and 1929. If and when that measure becomes law, I propose sending to the Congress a supplemental estimate for an appropriation to make its provisions effective. I am in favor of the proposed legislation extending the period of operation of this law with the understanding and hope that the administration of the funds to be provided would be with a view to the gradual withdrawal of the Federal government from this field, leaving to the states, who have been paid by Federal funds and schooled under Federal supervision, the privilege and duty of maintaining this important work without aid or interference from the Federal government.

"I have referred in previous budget messages to the advisability of restricting and curtailing Federal subsidies to the states. The maternity act offers concrete opportunity to begin this program. The states should now be in a position to walk

alone along this highway of helpful endeavor and I believe it in the interest of the states and the Federal government to give them the opportunity."

The second health topic in the message refers to tuberculosis in cattle and is as follows:

"For the eradication of tuberculosis in animals an estimate of \$5,853,000 is included in the budget. This is an increase of \$1,200,000 over the amount provided for the current year. The continuing increase in the number of cities which have placed embargoes against milk from dairy herds which have not passed the Federal tuberculin test is placing a heavy burden on the owners of dairy herds, since slaughter of infected animals is the accepted method of eradication. The furnishing of pure milk is of vital importance to the health of the people. Because of its interstate character it is entirely proper that the Federal Government share with the states the cost of protecting the purity of this great food supply. The amount included in the estimates should permit adequate prosecution of the work of eliminating tubercular cattle from dairy herds. The results of the work already done warrant the belief that we can confidently expect the complete elimination of this menace to health. With this hope and probability in mind, there certainly is no excuse or warrant for state or nation to withhold the funds necessary to effectively carry on this important campaign."

REGISTRATION

Twelve thousand physicians have registered with the State Department of Education in accordance with the new Medical Practice Act. This is three-fourths of the legal practitioners of medicine of New York State. But there still remain four thousand doctors who have not registered.

Many of those who have not registered are merely dilatory. They have received their cards from the Department of Education and have read

the directions in this Journal. They have laid both aside and now they can't find them.

The doctors are not refusing to register—they are just a bit careless. If you have not yet registered, write at once to the Board of Medical Examiners, State Department of Education, Albany, N. Y., and ask for a registration blank. The procedure of filling out the blank is simple and will not take ten minutes of any doctor's time. Register now.

ESSEX COUNTY MEDICAL SOCIETY

There were thirteen members present at the annual meeting of the Medical Society of the County of Essex, on November 16. The new officers elected are as follows:

President, Dr. W. T. Sherman, Crown Point, N. Y.; Vice-President, Dr. J. H. Evans, Keeseville, N. Y.; Secretary-Treasurer, Dr. L. H. Gaus, Ticonderoga, N. Y.

The scientific program consisted of a paper entitled "Hyperthyroidism and Incipient Pulmonary Tuberculosis, a Comparative Study," by Dr.

H. J. Harris of Westport. X-ray studies of the conditions described in the paper were shown by Dr. J. P. J. Cummins and Dr. M. E. Sargent.

An unusual case history was reported by Dr. Dowd. Dr. Cummins and Dr. Gaus—that of an abdominal carcinomatosis in a man of 27, with unusual clinical symptoms. This aroused much interest and was well discussed.

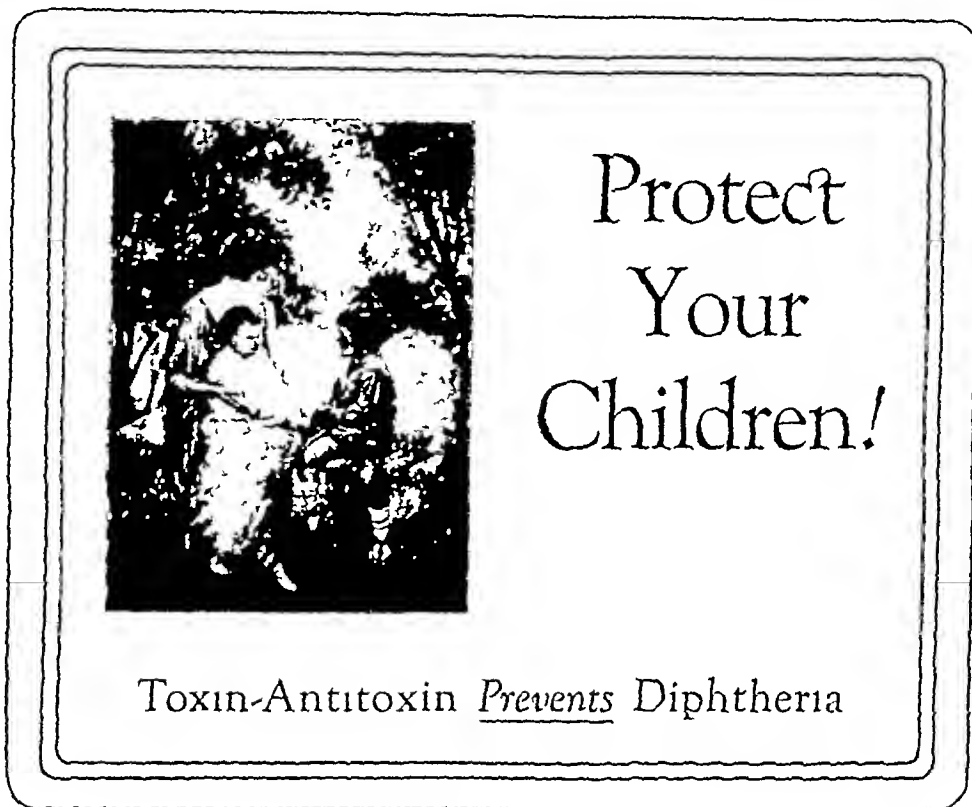
A very agreeable luncheon was served by the hospital staff at the Moses-Ludington Hospital following the scientific program.

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The largest and best known of the endowments are probably those having to do with public health, especially those phases which a group of persons or a whole community must carry on. The Carnegie Foundations have concerned themselves largely with scientific researches, but many lines of research extend into the fields of medicine, that into heredity, for example.

The Rockefeller Foundation has extended its activities over the whole world, and has accomplished wonders in the control of hookworm, yellow fever, plague, cholera, and other devastating diseases. Its greatest work has been that of inducing the local states and communities to assume the work after its practicality has been demonstrated.

The Sage Foundation is showing communities how to deal with conditions of a social nature. It is concerned with such questions as poverty, housing, transportation, city planning, all of which have definite effects on health.

The Commonwealth Fund makes studies regarding children, and supports clinics for the detection of mental defects and the correction of abnormal behavior.

The work of the Milbank Foundation is of peculiar interest to physicians at the present time, because it is conducting three demonstrations of the application of modern methods of disease prevention and health promotion,—one in a rural

county, one in a second class city, and still another in a section of the American Metropolis. It is to the credit of the officials of these communities that they are recognizing the value of the demonstrations and are assuming a considerable share of their activities.

There is one phase of public health activity which the foundations have scarcely touched, and that is the development and demonstration of practical ways by which physicians in private practice may discharge their civic duties along medical lines. Doctors and lay workers both reiterate the assertion that the family doctor is the greatest factor in public health work. This Journal has frequently expressed the belief that the medical societies of the counties and the State are the natural means through which civic medicine may be practiced, but time and personal service are required to develop and institute the methods of the practice. It would seem that this is a field which the foundations could enter. There is a reluctance on the part of the medical societies to the acceptance of gifts from the foundations, and there is also a hesitation on the part of the leaders in the foundations to giving the control of their funds to the medical societies. But these obstacles are by no means insuperable. More than one county medical society in New York is administering funds supplied by lay organizations, and are doing it to the satisfaction of the givers, the doctors, and the communities.

SERUM FOR SNAKE VENOM

Supplementing the report on serum for snake venom as given in this JOURNAL for August 15, 1926, page 729, attention is called to an item in the *New York Times* for October 8 in regard to the production of the serum in the United States. The report says:

"Nine rattlers and a large number of moccasin snakes were used yesterday to help produce American made anti-snake serum, an enterprise on which Dr. Amaral is working at the Mulford Company laboratories at Glenolden, Pa. The importation of anti-snake serum from Brazil is forbidden, according to a regulation of the United States Public Health Service, and Dr. Amaral is working in cooperation with Dr. Thomas Barbour of Harvard, the United Fruit Company and the Mulford laboratories to produce an American supply. In about four months, said Dr. Ditmars yesterday, there should be an American supply sufficient for all emergencies.

"Yesterday afternoon the snakes were brought in heavy ashcans into a room where Dr. Ditmars and Dr. Amaral had prepared a simple extracting apparatus. A rubber diaphragm was stretched across the top of a small vial, and the whole apparatus screwed to a table. The snakes were allowed to plunge their fangs into the rubber and the venom was caught in the vial."

Items such as this are valuable for two reasons:

- 1 They are up-to-date sources of information to the physician regarding the serum and where to obtain it.

- 2 They educate the people regarding the means of relief in an emergency caused by snake bites.

We wonder how the tabloid dailies missed the heroic doctors obtaining the serum. Of course the scientists had not advertised their plans.



THE DAILY PRESS



DEADLY SPORT

Hunting has come to be recognized as a deadly form of sport, according to the *New York Sun* for November 26 and 29. The New York State Conservation Commission has issued a report on the number of casualties reported during the month ending November 15, 1926, in New York State. The report shows that 15 persons were killed and 62 wounded while hunting during the month.

The report also shows that 650,000 licenses for hunting and fishing had been issued during the year. If this number of persons were exposed to the dangers incident to hunting, the death and casualty rates may be computed. Since 600,000 were engaged in hunting, and 77 casualties occurred, the casualty rate was 12.5 per 100,000 per month, or 150 per year. But not all the 600,000 were engaged in hunting during the month, and the actual casualty rate would therefore be much higher than that given. Statisticians will derive some comfort from the fact that the casualty rate for 1926 was only 75 per cent of that for 1925, when 29 persons were killed and 86 wounded.

The immediate causes of the 15 deaths were as follows:

Shot by companions	11
Accidents from own gun	2
Drowned	1
Heart failure while dragging a deer carcass	1

The proportion of killed to wounded,—1 to 4,—is about that which occurs in a battle. It may be presumed that the causes of the wounds are the same as those of death.

The causes of death among hunters are evidently carelessness and inexperience. The obvious remedies are therefore, 1, the exclusion of the

unfit by a system of licensing, and 2, the limitation of armaments after the manner of the national pacifists.

The licensing system applied to hunting is a failure as great as that of liquor selling. Every would-be hunter knows that the other fellow is careless, while he himself will surely be careful. No system of examination will ensure carefulness and thoughtfulness in the presence of prospective game.

The limitation of the use of fire arms has never been popular owing to the excessive development of the idea of personal independence. It is not creditable to the intelligence of American people that each individual should assert his right to do what he is forbidden to do by a law enacted for the good of all.

The only effective preventive measure against casualties from hunting is education. Killing wild life can no longer be justified by the need for protection against their depredations. The preservation of wild birds, fish and animals is demanded in every argument for getting people "Back to nature." The hunting instinct is too deeply imbedded in human nature to be eradicated under any conditions that are now in sight. How then may it be intelligently directed?

One evident answer is, by hunting with a camera instead of a gun. Shooting with a camera has all the zest of gun shooting, and it has the advantage of safety to everybody, including the animals and birds that are hunted.

The Boy Scouts movement, with its camping and nature study, will be a great factor in the development of the modern civilized system of hunting in which the camera is substituted for the gun.

PUBLIC HEALTH FOUNDATIONS

Physicians are interested in the great endowments for the promotion of progress, physical, mental, and moral. The great purposes of the endowments are, 1, the discovery of new truths, and 2, the application of the truths to the daily lives of people.

The *New York Times* of November 27 comments editorially on the report of Dr. F. P. Keppeler, President of the Carnegie Corporation. This report refutes a prevalent belief that since the larger foundations have supported various lines of work, other would-be donors have failed to

give. The facts are quite the contrary. It has been one of the basic conditions of gifts from the foundations that whenever a new line of activity has been undertaken, the foundation would carry it on as a demonstration with the expectation that the proper authorities would support and extend it when its value was assured. A typical example has been that of anti-meningitis serum. The Rockefeller Institution developed the methods of producing and applying the serum, and then gave its production and sale over to boards of health and reputable commercial houses.

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BOOK REVIEWS



MEDICAL CLINICS OF NORTH AMERICA Volume 9 Number 1, July, 1925 (St. Louis Number) Published every other month by the W. B. Saunders Co., Philadelphia and London Per Clinic Year (6 issues) Cloth, \$16.00, Paper, \$12.00

The catholicity of subjects discussed in this number, makes it unusually interesting. "The Dietetic Management of Renal Disease" is considered fully, but it is to be regretted that complete data was not furnished with each case. Such information would be of value to another physician when attempting to confirm the writer's observations. On page 73 there is evidently a mistake in the calculation of the quantity of sugar in the body of the patient under consideration. As a principle is being demonstrated in this case, it is well for readers to note the error.

Volume 9, Number 2, September, 1925 (New York Number)

This number contains an interesting article on Physical Therapy in Chronic Arthritis. The impression is left that physical therapy is purely a treatment and nothing definite is to be promised to the patient. Heart disease, gall bladder disease, pulmonary syphilis, and nephritis are considered from various standpoints. "The Nervous Run Down Patient" comes up for consideration, but the patient is left where he began. All of the treatments recommended give such patients little or no relief. This subject opens a wide field and more frequent excursions into it will add much of interest to medical literature. It is the reviewer's impression that the modern novelists understand such patients much better than physicians. The number as a whole is decidedly worthwhile.

Volume 9, Number 3, November, 1925 (New York Number)

The standard of interest characteristic of this publication is maintained in this number. Most of the topics considered are timely and the cases and statistical data are ample to illustrate the subject under discussion. As fruitless as the exploitation of the possible foci of infection in the nose, throat, and accessory sinuses, has been, one writer presents a possible utopia by more widespread manipulations in this area. With reference to the article on "Focal Infection" we think, it has been the experience of most every physician who keeps records of patients, that the day has passed when one should consider foci of infection of paramount importance. Many patients are parading themselves in the offices of physicians who have had all possible foci removed, yet they are sick. They are either suffering from a disease of unknown etiology, nervousness, or an incurable disease of known etiology. A physician should experience the same sense of embarrassment when speaking inclusively of focal infection, as when listening to some one talking on the dangers of perpetually chronic appendicitis.

Volume 9, Number 4, January, 1926 (Tulane University Number)

This number contains articles on thirty-five different subjects. All of the articles contain information of value to the physician. Tropical diseases are discussed, as well as those of universal distribution. The article on "Unusual Manifestations of Heart Disease" will be of interest to surgeons as well as physicians.

Volume 9, Number 5, March, 1926 (Chicago Number)

This number contains several articles on angina pectoris, consisting of case reports and discussions. There is no mention made of the operative treatment of this condition, and evidently it has been discontinued in Chicago. There is an interesting article on a case of hyperthyroidism, which was supposed at one time in the history of the trouble to alternate with hypothyroidism or myxedema. One sees mention frequently in the literature of these two conditions existing simultaneously in the same patient. This is because authors have probably never examined a thyroid gland at autopsy from a patient with true myxedema, because if they had they would have found that so much of the thyroid tissue had disappeared that there was not enough of the gland left to produce a hyper amount of the thyroid secretion, normal, or otherwise. There is an interesting case of cerebral hemorrhage with hyperglycemia and glycosuria presented.

Volume 9, Number 6, May, 1926 (Chicago Number)

This number contains a number of unusually interesting articles, and one that is of value to anyone examining patients, as it gives the ground work for the study of neurologic cases. One of the author succumbs to one of the common tendencies of this day in medical literature, namely, to tell his audiences that he is an expert. The article on "Disability, Damages or Disease" is noteworthy, as the author discusses a group of case types that are very trying to physicians everywhere. Singer's article on rare diseases of the stomach calls attention to frequently forgotten disease entities.

J. ARTHUR BUCHANAN

DISEASES OF THE SKIN By RICHARD L. SUTTON, M.D. LL.D., F.R.C. Sixth edition, revised and enlarged. Octavo of 1303 pages, with 1147 illustrations, and 11 colored plates. St. Louis, C. V. Mosby Company 1926. Cloth, \$12.00.

This edition of Sutton's excellent book follows only two years after his previous edition, but its publication has been necessitated by the advances made in Dermatology during that period. The author has included, for the first time, a few of the rarer, or more recently discovered, dermatoses, which include the dermatological aspect of rat-bite fever, ulcer vulvae actum, and others. Syphilis has taken up about eighty-five pages of the text, and while the author appreciates that this is not an exhaustive treatment of the disease, what he has written on the subject is extremely lucid, and up to the minute.

The book is well written, in a style which makes for easy reading, printed in good type on excellent paper, and is copiously illustrated. The reviewer believes it to be one of the real good books on Dermatology today.

E. ALMORE GAUVAIN

DISEASES OF CHILDREN A Short Introduction to Their Study. By HECTOR CHARLES CAMERON, M.A., M.D. 16mo of 199 pages. London and New York, Oxford University Press, 1926. Cloth \$1.75 (Oxford Medical Publications).

As the writer claims, this is no systematic presentation of Pediatrics or any portion of it. It is almost a conversational presentation of certain aspects of it.

The reviewer enjoyed the reading of it and agrees with the author's views as fully as anyone who thinks, is apt to agree with another, we differ in some items.

If the younger or any practitioner will carry this in his pocket—it is easy pocket size—and read it from time to time he will get value.

W. D. L.



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